

# **U.S. Department of the Interior**

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# SMITHSFORK DRAFT ALLOTMENT MANAGEMENT PLAN

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# SMITHSFORK ALLOTMENT DRAFT ALLOTMENT MANAGEMENT PLAN

ALLOTMENT NO. 21005

#### PHYSICAL DESCRIPTION OF ALLOTMENT

The Smithsfork Allotment is a 90,937-acre cattle and sheep allotment located north and east of Cokeville, Wyoming. The allotment is composed of approximately 64,725 acres of federal land; 14,627 acres of private land; and 11,585 acres of State land (see Map, General, pg 28 & 29).

Elevation on the Smithsfork Allotment ranges from 6,100 feet near the Bear River Valley bottom to 9,313 feet at the summit of Raymond Mountain. The topography of the area consists of an up thrust mountainous area (Raymond Mountain) cut by steep canyons on the west side of the allotment, to more rolling topography to the east. The entire allotment is fairly mountainous and is characterized by steep slopes and deep canyons. The allotment is split roughly in half by natural barriers along an east/west axis beginning at Raymond Canyon and running east to Muddy Ridge. A portion of the allotment is accessible only by foot travel or horseback due to the rugged terrain.

Precipitation ranges from 10 inches to 14 inches per year in the lower elevations of the allotment to 20 or more inches in the areas of Raymond Mountain with timbered slopes. Most of the precipitation comes in the form of snow with snow depths of three or more feet, common in late winter, with depths of 5 feet or more in the higher elevation areas. Deep snowdrifts are common and avalanches occur on steep slopes especially on Raymond Mountain. Rapid snowmelt in the spring can cause a high peak flood flow in any of the streams in the allotment. The area also experiences high intensity thunderstorms in the summer that can cause flash floods in the streams.

The Raymond Mountain Wilderness Study Area (WSA) is located in the Sublette Mountain Range (Raymond Mountains) in the western portion of the Smithsfork Allotment (see Map, WSA, ACEC, pg 30). The WSA is approximately nineteen miles in length and four miles wide at its widest point. It contains approximately 32,936 acres. The WSA is used by both cattle and sheep. In both "grandfathered" and non-"grandfathered" grazing, changes in number and kind of livestock within the WSA or in period of use may be permitted, as long as: (1) The changes do not cause declining condition or trend of the vegetation or soil, and (2) the changes do not cause unnecessary or undue degradation of the lands (see Appendix A). The WSA has diverse vegetation and steep topography.

The Raymond Mountain Area of Critical Environmental Concern (ACEC) was designated in 1982. It lies wholly within the boundaries of the Smithsfork Allotment and within the area being managed by the Thomas Fork Habitat Management Plan (HMP). The ACEC was designated to emphasize the management needs of the Bear River (Bonneville) Cutthroat Trout (BCT), which is a BLM sensitive species. The ACEC is approximately 11 miles in length and 4 miles wide at its widest point. It contains approximately 12,660 acres. (See map on pg 30).

#### INTRODUCTION AND PURPOSE

#### **Coordinated Resource Management Efforts**

The Smithsfork Coordinated Resource Management (CRM) process was initiated in the spring of 1995. The initial issues were condensed into the following three major areas. One issue was the lack of range improvements such as water developments, fences, and vegetation manipulation (brush control). Another issue was the lack of livestock control and poor distribution. And, finally, questions about livestock numbers versus capacity.

Wildlife numbers, predators, wildlife depredation on stored hay crops, cutthroat trout populations, and concerns with riparian habitat, stream degradation, and water quality were also identified. Concern with the plant succession in upland plant communities and recreational use of the allotment were also mentioned.

The subsequent major management concern on this allotment is the condition of riparian areas associated with streams and upland springs and seeps due to past grazing and other activities, which include chemical spraying of the riparian areas subsequently killing most of the willow populations in the late 60's and early 70's, and numerous sheep to cattle conversions. Under season-long grazing use, and with a lack of upland water sources, livestock tend to concentrate in

riparian areas for virtually the entire growing season every year. Proper Functioning Condition Inventory Data indicates that most of the streams are "functioning-at risk" which means the riparian-wetland areas are in functional condition, but some resource attribute makes them susceptible to degradation. Some are in an upward trend and some are in a downward trend. This AMP will provide grazing management practices that should improve riparian vegetation on stream corridors and spring sites on the uplands (see Map, Streams, pg 31).

The second major subsequent concern is the condition of upland plant communities. Some of the upland sites are dominated by stands of old, decadent sagebrush, mountain shrubs, and aspen. In 1968-1970, the BLM initiated a brush control program and treated approximately 21,500 acres (one quarter of the allotment). These treatment areas are now dense stands of sagebrush. Some of these stands are actually denser than adjacent untreated sites. Decades of fire suppression have also contributed to the current dominance of sagebrush in upland plant communities. A coordinated vegetation manipulation program to treat some of these old stands could be used.

To address this concern, proposals are being developed to begin implementation of vegetation manipulation to create a mosaic of different age classes, cover, and vertical structure within these communities. This will improve biologic diversity, wildlife habitat, and watershed function.

An additional concern is that cattle from the Smithsfork Allotment have been trespassing on the Kemmerer Ranger District of the Bridger-Teton National Forest north of the allotment.

# **Land Use Plan Consistency**

The Kemmerer Resource Management Plan (RMP) published in April 1986, and the Rangeland Program Summary Update, completed September 1990, provided direction for management of the Smithsfork Allotment. The allotment categorization process conducted during the preparation of the Kemmerer RMP categorized the Smithsfork Allotment as an (I) Allotment and ranked it number one for priority. The overall objective for "I" category allotments is to "improve" range conditions. The Kemmerer RMP identified poor livestock distribution, some riparian/wet meadows being overgrazed by livestock, conflicts between wildlife/watershed and livestock grazing, and accelerated soil erosion as problems on the allotment.

Other decisions in the land use plan were:

- The attainment of Wyoming Game and Fish Department strategic plan population objectives for wildlife will not be jeopardized.
- Riparian areas in the Thomas Fork Drainage will be managed to re-establish riparian/willow vegetation. Stream improvement practices to improve riparian and wetland areas for fisheries habitat will be implemented.
- The Thomas Fork AHMP will continue to be implemented to improve habitat for Bonneville Cutthroat Trout.

The BLM must take appropriate action under 43 CFR 4180 upon Determination that one or more of the *Standards for Rangeland Health and Guidelines for Livestock Grazing Management for Public Lands* Administered by the BLM in the State of Wyoming are not being met.

In May 2000, as a result of several years of monitoring data the BLM issued a Determination that Standards 2 and 4 were not being met due to livestock grazing practices:

STANDARD # 2: Riparian and wetland vegetation has structural, age, and species diversity characteristic of the stage of channel succession and is resilient and capable of recovering from natural and human disturbance in order to provide forage and cover, capture sediment, dissipate energy, and provide for groundwater recharge.

STANDARD # 4: Rangelands are capable of sustaining viable populations and a diversity of native plant and animal species appropriate to the habitat. Habitats that support or could support threatened species, endangered species, species of special concern, or sensitive species will be maintained or enhanced.

Based on these assessments, the BLM interdisciplinary team recommended that at a minimum, the guidelines that need to be addressed in the future management of this allotment include Guidelines 1 through 9 (below). Future permit terms and conditions need to address a reduced amount of hot season grazing that occurs on the same riparian areas at the same time each year, and discontinuation of season long grazing on parts of this allotment. Grazing Management Practices must provide for restoration, maintenance and improvement of riparian plant communities, and maintenance of adequate residual plant cover following grazing. Timing, duration, and levels of authorized grazing must be addressed throughout the allotment to ensure adequate progress towards the standards and allotment objectives. Range Improvements may be utilized to address implementation of grazing management changes to restore, maintain, or enhance habitats to assist in the recovery of sensitive or listed species (either state designated or federally listed).

# Guidelines

- 1. Timing, duration, and levels of authorized grazing will ensure that adequate amounts of vegetative ground cover, including standing plant material and litter, remain after authorized use to support infiltration, maintain soil moisture storage, stabilize soils, allow the release of sufficient water to maintain system function, and to maintain subsurface soil conditions that support permeability rates and other processes appropriate to the site.
- Grazing management practices will restore, maintain, or improve riparian plant communities.
- Range improvement practices (instream structures, fences, water troughs, etc.) in and adjacent to riparian areas
  will ensure that stream channel morphology and functions appropriate to climate and landform are maintained or
  enhanced.
- 4. Grazing practices that consider the biotic communities as more than just a forage base will be designed in order to ensure that the appropriate kinds and amounts of soil organisms, plants, and animals to support the hydrologic cycle, nutrient cycle, and energy flow are maintained or enhanced.
- 5. Continuous season-long or other grazing management practices that hinder the completion of plant's life-sustaining reproductive and/or nutrient cycling processes will be modified to ensure adequate periods of rest at the appropriate times.
- 6. Grazing management practices and range improvements will adequately protect vegetative cover and physical conditions and maintain, restore, or enhance water quality to meet resource objectives.
- 7. Grazing management practices will incorporate the kinds and amounts of use that will restore, maintain, or enhance habitats to assist in the recovery of federal threatened and endangered species or the conservation of federally listed species of concern and other State-designated special status species.
- 8. Grazing management practices and range improvements will be designed to maintain or promote the physical and biological conditions necessary to sustain native animal populations and plant communities.
- Grazing management practices on uplands will maintain desired plant communities or facilitate change toward desired plant communities.

# A. OBJECTIVES

# **BLM Goals/Objectives**

The current grazing regulations (43 CFR 4100) state that the Bureau's objective is to promote healthy, sustainable rangeland ecosystems; accelerate restoration and improvement of federal rangelands to proper functioning condition; promote the orderly use, improvement and development of the federal lands; establish efficient and effective administration of grazing of federal rangelands; and provide for the sustainability of the western livestock industry and communities that are dependent upon productive, healthy federal rangelands.

The Bureau of Land Management's Riparian Wetlands Initiative for the 90's set the goal that by 1997, 75% of the federal riparian wetland areas will be in proper functioning condition. The proper functioning condition definition is, in essence, that riparian vegetation will be present along streams sufficient to dissipate stream energy during high flows, provide bank stability, improve water quality, aid floodplain development, develop diverse channel characteristics, and support greater biodiversity. Riparian areas when in proper functioning condition will provide for the greatest number of beneficial uses which may include use by wildlife as habitat, forage for livestock, and where possible high quality fisheries. (See Map, PFC Data, pg 32)(See chart, Appendix C).

# **Allotment Resource Objectives**

The 1986 Kemmerer RMP identified the following allotment specific objectives/opportunities for the Smithsfork Allotment:

- Need to improve distribution by developing water for livestock, salting and herding away from bottoms.
- Need to determine proper stocking rate through monitoring.
- Potential for vegetation manipulation on loamy range sites.
- Need to implement grazing system based on phenological requirements of the vegetation.
- Need to implement watershed management plan.

The following objectives have been developed through coordination between the Technical Review Team and the Smithsfork Steering Committee as general objectives for the allotment:

Overall general objective: Maintain, improve, or enhance upland and riparian area conditions in the Smithsfork Allotment.

# **Desired Plant Community**

The Desired Plant Community (DPC) is the plant species assemblage which currently exists, or which, through natural succession and/or management actions, is reasonably sustainable on an ecological site, and which best supports land use goals. The DPC must be a plant community, consistent with the site potential and it becomes the focus of management. DPC goals and objectives will be considered achieved as long as the communities being monitored are approaching or are within reasonable range of these defined targets.

# **Riparian Vegetation Desired Plant Community Objectives**

The Desired Plant Communities (DPC) should have desirable, deep-rooted herbaceous and (in some cases) woody vegetation (including, but not limited to sedge, rush, willow, currant, chokecherry, birch, cottonwood, aspen, dogwood, and native riparian grasses and forbs) with a short-term intent of achieving proper functioning condition on streams. The site specific objectives on the greenline monitoring transects established in the late 1990's by the Greenline TRT and can be found in the Allotment Evaluation written in November, 2000. These transects are located on the Greenline Map in the maps section. These have also been listed as specific objectives in the Allotment Resource Specific Objectives section on page 8.

# • Riparian Areas without Willows:

This desired plant community (DPC) should be achieved within 15 years. In the 5-year DPC evaluation, if monitoring shows a particular riparian area has willows, then they will be evaluated under the criteria for "Riparian Areas with Willows."

- As identified by site-specific resource objectives; increase or maintain the proportion of desired, deep-rooted riparian species within plant communities along the greenline, which are capable of holding soils, retaining sediment, and buffering the erosive forces of the stream.
- No more than five-percent (5%) of the perennial streambanks, as measured on the greenline transects, should be devoid of vegetation (eroding or agrading).
- Riparian cross-section data will be used to determine site-specific objectives for community types at each monitoring site.

# • Riparian Areas with Willows (currently or in the future):

The desired plant community (DPC) should be achieved by the year 2020:

- Twenty-five percent (25%) or more of riparian plant communities as measured on the greenline transects should be composed of willows or other desirable woody species. The remainder of the riparian plant communities

along the greenline should be composed of desirable, deep-rooted riparian species capable of holding soils, retaining sediment, and buffering the erosive forces of the stream.

- No more than five percent (5%) of the perennial stream banks, as measured on the greenline transects, should be devoid of vegetation (eroding or agrading).
- Riparian cross-section data will be used to determine site-specific objectives for community types at each monitoring site. This will include a percent canopy-cover figure for willow (as needed).
- Age-classes of willow, as measured by stem-count along a belt-transect parallel to the greenline, should consist of:

Sixty percent (60%) young/sprouts (less than 4-feet high, single-stem to simple branching, and not seed producing); thirty to forty percent (30% - 40%) mature (greater than 4-feet high, complex branching, more than ten (10) stems, seed- producing); and zero- to ten-percent (0% - 10%) decadent/clubbed/severely-hedged.

# **Upland Vegetation Desired Plant Community Objectives**

Goals for upland vegetation are set at the landscape, rather than at a site-specific level, due to a desire to maintain a healthy mix of plant communities and successional stages across the entire allotment area. An inventory of successional stages on upland sites has not been completed, but the professional opinion of the Technical Review Team (TRT) is that a high percentage of these upland shrub communities are in a late successional stage, and are dominated by decadent and dying plants. The following upland landscape objectives were developed to improve the health of these upland plant communities.

# **Landscape Objectives for Specific Upland Plant Community Objectives**

The following objectives are not intended to enhance or allow implementation of this AMP but are meant to reflect the vegetative conditions which should provide a stable community to enhance the historic range of variability for rangeland health reasons, improved habitat for wildlife, and provide an ecologically sound pattern (similar to naturally expected conditions) on the landscape through time. They are not a measure of the success of the grazing plan per se, but rather will reflect the success of natural fire and/or vegetation manipulation through a variety of methods over time. The attainment goal for 2050 is based on the expectation that the implementation of vegetation manipulation needs to be completed over a long time frame to achieve the diversity of age classes and canopy covers without adversely affecting a large proportion of the allotment at any one time.

# • Wyoming or Mountain Big Sagebrush/Grassland:

The long-term landscape goal is to attain a mosaic of different successional age classes by the year 2050, 30% of S/G communities in  $\leq$ 10% sagebrush canopy cover; 40% of the S/G communities in 10-20% sagebrush canopy cover; 30% of the S/G communities in  $\geq$ 20% sagebrush canopy cover.

# • Aspen:

The short-term goal is for 15% of aspen sites to be regenerating by the year 2020 with 25% aspen suckers (0' to 4') and 15% saplings (4' to 8'). By 2050 (on a landscape scale), aspen communities should be composed of a mosaic of different age-classes consisting of 30% of the stands with young trees, 50% with mixed ages of young to mature trees, and 20% dominated by mature to decadent trees.

Inspections of the allotment over the last few years have indicated that existing aspen stands have regeneration of different age groups at all stands, some regeneration occurs throughout the stands and not just on the edges.

# • Mixed Mountain Shrub:

Mountain shrub communities include single-species dominated, or a mix of the following species: antelope bitterbrush, serviceberry, mountain mahogany, snowberry, chokecherry, currant, and Ceanothus. By 2050 (on a landscape scale), mountain shrub stands should be comprised of a mosaic of different age classes consisting of 30% of the communities in predominantly young shrubs, 50% in a mix of young-to-mature shrubs, and 20% dominated by mature to decadent.

# **Allotment Resource Specific Objectives**

The attainment/non-attainment of these objectives will be analyzed after the 2008 and 2012 grazing seasons.

- Attain an average streambank vegetative shade canopy of 40%.
- Bank trample will be allowed on less than 25% of the stream banks.
- Have the Bonneville Cutthroat Trout in the potential but currently unoccupied streams. This objective was stated in the Thomas Fork Habitat Management Plan, dated September, 1979. The creeks listed were Huff Creek, Coal Creek, Little Muddy Creek, and the South Fork of Raymond Canyon.
- The vegetative use level objectives are:
  - a. The stubble height objective for the standing stubble on the green line on the federal riparian areas in all pastures will be an average of 5 inches of standing stubble for Nebraska Sedge, <u>Carex nebraskensis</u>, or Beaked Sedge, <u>Carex rostrata</u>, the identified key species. This use will be measured after all livestock have left the allotment in the fall. Five inches has been identified as the minimum stubble height needed to provide streambank protection for the following spring runoff.
  - b. The allowable use criteria objective for willows in all pastures for willows is 40% of current years growth based on the average percent of leaders browsed on approximately 10-20 plants on the federal riparian transects as measured after all livestock have left the allotment in the fall.
- The BLM Riparian Initiative is for 75% all streams to exist in PFC (see Appendix C)(see map on page 32).

	RATI	RATING (by federal land miles only) PFC = Proper Fun Condition; NF = Non-Functional				
		FUNCTIONAL AT RISK				
UPWARD NO APPARENT DOWNWARD						
	PFC	TREND	TREND	TREND	NF	
CURRENT MILES/	10.04	8.90	19.98	12.25	7.69	
PERCENTAGE	17%	15%	34%	21%	13%	
OBJECTIVE MILES/	44	15	0	0	0	
PERCENTAGE	75%	25%	0%	0%	0%	

• Reach the Bank Stability criteria of Good (7) or better on all greenlines (see Appendix B)

	GL CU	RRENT*	GL PLANN	ED RATING
Name	numerical	stability	numerical	stability
North Corral Creek	7.5	GOOD	7	GOOD
Muddy Creek	3.94	POOR	7	GOOD
Upper Little Muddy	4.86	POOR	7	GOOD
Little Muddy-out	5.04	MODERATE	7	GOOD
Lower Coal Creek	8.61	GOOD	7	GOOD
Coal Creek-out	5.70	MODERATE	7	GOOD
SF Raymond	2.58	VERY POOR	7	GOOD
Upper Huff Creek	5.75	MODERATE	7	GOOD
Huff Creek-out	6.45	MODERATE	7	GOOD
Lower Stoner-State	7.54	GOOD	7	GOOD
Mill Creek-State	3.36	POOR	7	GOOD
Mill Creek-federal	3.80	POOR	7	GOOD
First Creek	3.67	POOR	7	GOOD
Lower Raymond	3.43	POOR	7	GOOD

• The Greenline Technical Review Team (TRT) read and established specific greenline objectives in 1996, 1998, 1999, and 2000. The complete data collected to date on the greenline transects and listed objectives established by the TRT are shown in (appendix D). They are now scheduled to be read in 2008. This gives the fully implemented AMP one grazing cycle before being analyzed. The Greenline objectives have been established on the vegetative

components. The National riparian Team in their report of 1998, listed "the inclusion of density or cover objectives for willows within a certain time frame is unrealistic, especially in areas where they have been chemically removed".

STREAM	LOCATION	COMMUNITY TYPE	YEAR OBSERVED		OBJECTIVE YEAR
NORTH CORRAL	T25N, R119W, S. 2 NWNE	COMMUNITY TYPE	1996		2008
CREEK		SEDGE	75		85
		WILLOW	-0-		5
MUDDY CREEK	T26N, R118W, S. 20 SWNW	COMMUNITY TYPE	1996	2000	2008
		SEDGE	10	11	40
		WILLOW	0	0.1	5
UPPER LITTLE MUDDY	T27N, R119W, S. 24 NWNW	COMMUNITY TYPE	1996	1999	2008
		SEDGE	22	39	50
		WILLOW	0	0	5
LOWER LITTLE MUDDY	T27N, R119W, S. 1 NENW	COMMUNITY TYPE	1996	1999	2008
OUTSIDE EXCLOSURE		SEDGE	40	49	70
		WILLOWS	0	0	5
LOWER COAL CREEK	T28N, R119W, S. 27 SENE	COMMUNITY TYPE	1996		2008
		SEDGE	52		70
		WILLOW	0.5		10
COAL CREEK	T28N, R119W, S. 13 SWNW	COMMUNITY TYPE	1996	1999	2008
OUTSIDE EXCLOSURE		SEDGE	54	53	75
		WILLOW	0	0	10
SOUTH FORK	T26N, R119W, S. 4 SE	COMMUNITY TYPE	1998	2000	2008
RAYMOND CANYON		SEDGE	2	6	30
		WILLOW	0.5	0.7	5
UPPER HUFF CREEK	T29N, R119W, S. 15 SWNW	COMMUNITY TYPE	1998	2000	2008
		SEDGE	22	44	45
		WILLOW	0	0.2	10
HUFF CREEK	T28N, R119W, S. 34 SWSE	COMMUNITY TYPE	1998	2000	2008
OUTSIDE EXCLOSURE		SEDGE	41	42	70
		WILLOW	0	0	5
LOWER STONER	T28N, R119W, S. 36 NWSE	COMMUNITY TYPE	1996	2000	2008
STATE		SEDGE	60	73	75
		WILLOW	0	4	5
MILL CREEK	T26N, R118W, S. 31 NWSW	COMMUNITY TYPE	1996	1998	2008
STATE		SEDGE	17	10	55
		WILLOW	0	0	10
MILL CREEK	T26N, R119W, S. 35 NENE	COMMUNITY TYPE	1996	1998	2008
FEDERAL		SEDGE	25	20	55
		WILLOW	0	0	5
FIRST CREEK	T25N, R119W, S. 2 NWNE	COMMUNITY TYPE	1996	1999	2008
		SEDGE	22	29	60
		WILLOW	0	0	5
LOWER RAYMOND C.	T26N, R119W, S. 5 NWNW	COMMUNITY TYPE	1996	2000	2008
		SEDGE	0	0.4	20
		WILLOW	7	17.5	15

The final Rangeland Health Standards and Guidelines Conformance Assessment found that the resource conditions on the allotment did not meet Standard #2 (Riparian and wetland vegetation . . .) and Standard #4 (Rangelands are capable of sustaining viable populations and a diversity of native plant and animal species appropriate to the habitat . . . ). Based on the assessment, the BLM interdisciplinary team recommended the following:

- 1) Future permit terms and conditions must address the need for a reduced amount of hot season grazing on the same riparian areas at the same time each year and discontinuation of season long grazing on all of this allotment.
- 2) Grazing Management Practices must provide for restoration, maintenance and improvement of riparian plant communities, and maintenance of adequate residual plant cover following grazing.
- 3) Timing, duration, and levels of authorized grazing must be addressed throughout the allotment to ensure adequate progress towards the standards and allotment objectives.
- 4) Range Improvements may be utilized to address implementation of grazing management changes to restore, maintain, or enhance habitats to assist in the recovery of sensitive or listed species (either state designated or federally listed).

# **B:** MANAGEMENT SYSTEM

# **Grazing History**

The Smithsfork Allotment (see Map, General, pg. 29) has historically been used by both cattle and sheep. During the 1960's and early 1970's, a number of the sheep permits were converted to cattle permits. At the time the allotment was adjudicated, there were 33 separate livestock operations. Of this total, seven were permitted for sheep only, fourteen for cattle only, and twelve were permitted for both sheep and cattle. Through consolidation of operations and conversions in kind of livestock, as well as base property leases, 19 different operators are now permitted on 24 permits to run on the allotment. Four operators run sheep only, one operator runs both sheep and cattle, and fourteen run only cattle. There are 9,814 federal AUMS; 6209 federal land cattle AUMS and 3605 federal land sheep AUMS on the allotment. There are 4190 AUMS of suspended use. The tables on pages 15 and 19 depict the current authorized use on the allotment.

The federal and unfenced private and state lands in the Smithsfork Allotment were surveyed in 1960-62 to estimate annual forage production and to arrive at livestock carrying capacity adjudication. On the basis of that survey, livestock grazing was allocated at approximately 20% of the estimated total annual vegetation growth. The remaining annual plant production (80%) was reserved in place for plant health, watershed and soil protection, wildlife habitat and aesthetic purposes.

The Smithsfork Allotment, Notice of Final Advisory Board Recommendation and Decision of District Manager on Adjudication of Grazing Privileges, was adjudicated on March 30, 1966, for 11,584 livestock AUMS. This amounted to a 38.9% reduction from the recognized Class I demand of 18,945 AUMS. 2,348 AUMS were reserved for wildlife. The adjudication was subsequently appealed by the permittees. By a stipulation and agreement dated August 7, 1967, signed by the District Manager and State Director, the appellants withdrew their appeals. Parties to the agreement did agree to apply for and accept non-use to the extent of 13% of their recognized qualified demand. They also agreed to a three-year sagebrush control-spraying program. In 1968, 1969, and 1970, a total of 21,222 acres of Federal, State and private lands were sprayed. On November 10, 1970, the Kemmerer Resource Area Manager evaluated the spraying program and as a result, restored the amount of the 13% voluntary non-use mentioned above, to approximately 14,000 AUMS of federal preference.

Prior to formation of the Smithsfork Coordinated Resource Management (CRM) Steering Committee in 1995, there was an informal grazing system employed on the north end as a result of the Thomas Fork AHMP. The informal system consisted of deferment of the Huff Creek watershed until after August 1 each year. A rider was utilized on the north end to control livestock. Construction of the Huff Creek and Coal Creek Exclosures was completed in 1980, and the Little Muddy exclosure was built in 1982. Riding continued to be the primary method for livestock control during the 1995-2000 grazing seasons.

In 1995 and 1996, the permittees proposed a rotation using herding in lieu of pasture fencing as an alternative to season-long grazing. The operators attempted to rotate their individual cattle herds according to the rotation plan, but livestock control was very difficult. This system did not improve grazing distribution or resource conditions significantly.

The Little Muddy exclosure was rebuilt with new materials in 1997. The Huff Creek exclosure was rebuilt with new materials in 1999. The Coal Creek exclosure was reconstructed in October 2000. The BLM assumed maintenance responsibility on the exclosure fences. Since the establishment of the CRM in 1995, changes in management were employed under Annual Authorizations or Annual Operating Plans (AOP). Various deferred rotation systems using natural barriers and herding were attempted between 1995 and 2000.

In 1997, a high-intensity, short-duration system using riders was implemented under an AOP. Each operator had assigned use areas, move dates and utilization criteria. Voluntary non-use was taken to provide rest in Raymond Canyon. Again, this system did not produce the desired results due to the lack of pasture fencing and difficulty in controlling cattle by herding alone.

The 1998 AOP proposed two separate grazing rotations; one for the north half and one for the south half of the allotment. The north and south units each had four use areas in which cattle were to be rotated in a deferred grazing system. Spring/fall sheep use was also coordinated with the cattle rotation. Some electric fencing and four full time riders were used to implement these rotations. Some success was noted in lowering utilization levels, achieving better grazing distribution and increasing residual stubble heights along riparian greenlines.

Approximately 11,500 AUMS of Active Use of the 14,010 AUMS of Active Preference were licensed for the five years prior to 1999. This average 18% non-use includes ten percent voluntary non-use taken by the permittees in 1997-1999 to compensate for prescribed rest of the Raymond Canyon Watershed recommended by the BLM.

In 1999, the AOP essentially continued the 1998 grazing plan, which resulted in improvement in resource conditions on portions of the allotment, especially Raymond Canyon. However, cattle control without pasture fences continued to be inadequate. This grazing plan proposed 7 pastures for rotating two separate cattle herds in the north and the south. Successful implementation of these rotations would require an excessive amount of pasture fencing. A much simpler grazing system involving fewer pastures and perhaps a single cattle herd was proposed after the grazing season by the association.

In 2000, a two-pasture deferred system with one herd of cattle and individual use areas for sheep was attempted. Initially, cattle were distributed to the South Pasture from late May through Mid-July. Without fencing barriers, some cattle made their way into the North Pasture early, especially in the Little Muddy drainage. Four riders were assigned to keep cattle in the authorized use areas.

Complications with the riders occurred including injuries, scheduling difficulties, cattle placement, and communication problems. When the pasture moves were scheduled to the North Pasture, the majority of the cattle made the move; however there continued to be cattle drift and strays throughout the summer in the South Pasture. Raymond Canyon was used heavily due to inadequate control of livestock in the canyon. The result after one year albeit during drought conditions, was that stubble heights were exceeded in most of the streambank riparian corridors for some or a large portion of each of the streams in the allotment. Regrowth did occur to adequate levels where livestock were successfully herded or kept out of the creeks for that time frame. However, even where this success was observed early, it was compromised later in the season due to drift of livestock back into those areas, utilizing that critical regrowth.

On August 2, 2001, the Kemmerer Field Office issued a Final Decision (FD) reducing the capacity of the allotment by 30% over four years. The 14,010 AUMS of active preference was reduced by Final Decision to 9,814 AUMS: 6209 Cattle AUMS and 3605 Sheep AUMS. The AUMS that were reduced and no longer authorized are listed on the new permits as Suspended AUMS. The FD also specified the development of this Final AMP by the start of the 2005 grazing season.

There are currently 24 active permits on the Smithsfork Allotment. The chart below reflects the permitted Active AUMS and the suspended AUMS on the allotment.

PERMITTED NUMBERS AS OF MARCH 1, 2005							
AUTHORIZATION	OPERATOR	PERMITTED	SUSPENDED				
NUMBER		AUMS	AUMS				
4904005	ARGYLE RANCH INC	1156	495				
4904012	BISCHOFF, ERNEST G.	29	12				
4904016	BOEHME RANCH	296	126				
4904017	BOEHME, JOHN & SONS	68	27				
4904028	3Y LIVESTOCK LC	775	330				
4904030	BOEHME, GARTH T.	110	45				
4904043	HARDESTY, CHARLES and ANGELA	200	84				
4904062	JOHNS, ROLAND	141	57				
4904080	HIRSCHI, LaVALL	4	3				
4904104	LOERTSCHER, KARMA	469	198				
4904138	ROBERTS, FRED W	1784	765				
4904192	TEICHERT BROTHERS, LLC	132	54				
4904198	MINHONDO RANCH	194	81				
4904265	CORNIA, HAL B	131	54				
4904276	POPE, EVAN	1689	723				
4904300	CORNIA, HAL B	186	78				
4900048	K-H INVESTMENTS LIMITED	319	135				
4900105	ESTERHOLDT, ERICK W**	530	222				
4900157	BROOKS, SHANE, lease	57	24				
4900221	ARGYLE RANCH, INC, lease	98	42				
4900212	NECKTIE RANCH, LLC, lease	588	266				
4900217			8				
4900219	ARGYLE RANCH, INC	187	85				
4900220	LARSON, GERRY, lease	634	276				
	TOTALS	9814	4190				
4900105	** use in fenced private pasture	21					

# General Livestock Operations - All Operators

As directed by the Smithsfork Grazing Association, the daily livestock grazing operations on the Smithsfork Allotment will be the responsibility of the Association Range Boss, as a representative of all permittees and the Association, working in cooperation and coordination with the BLM in compliance with the prescribed management plan. The Range Boss will coordinate and direct on the ground livestock operations including turnout, herding within the pastures, pasture moves, salt placement and fall gather. The Range Boss may call upon the Association Directors for assistance in resolving conflicts that may arise.

The Association will develop a range-riding plan that assures the availability of the necessary additional riding help from each of the Smithsfork cattle permittees to effectively accomplish pasture moves, fall gather, and any unforeseen contingency.

The one herd concept for cattle is for pasture management only. The cattle will be moved as a herd unit between pastures on the specified move dates. Once in a pasture, the cattle can either be dispersed throughout the pasture or moved as a herd unit throughout the pasture. Proper distribution of livestock in both the uplands and riparian areas will assure that the potential proper utilization levels occur and that the potential for remaining vegetation is met.

The recognized key areas for management on the Smithsfork Allotment are the riparian areas. Management and move criteria used for moving the livestock prior to the authorized move dates will be based on utilization and annual monitoring data collected in the riparian areas.

All livestock will have identifiable, authorized brands, paint brands and/or ear tags with identification of the operator. All cattle on the allotment will also have an authorized BLM ear tag.

At present, no threatened, endangered or candidate species are known to occur on the allotment. Habitat for grey wolf is present and the area is within the potential recovery range for the grizzly bear. In the event these species remain on the threatened or endangered species lists, and eventually occupy habitat on or immediately adjacent to the allotment, protection measures for these species could become management requirements for the allotment. One potential measure would be carcass removal to prevent attraction of bears and potentially encouraging predation on livestock. Other species occupying the allotment such as the greater sage grouse which is currently petitioned for listing, could become listed as threatened or endangered, with their own sets of protection measures which would also become requirements on the allotment.

- Sage Grouse management stips:
  - Sage Grouse Leks. No surface disturbance within 1/4 mile of lek center between February 1- May 15.
  - Sage Grouse Nesting. No surface disturbance within 2 miles of lek center between April 1- July 1.
     See map for Sage Grouse Lek locations (pg 33).

# General Management Stipulations Common to Both Classes of Livestock

- Raymond Canyon Watershed. Voluntary non-use, 8% based upon survey capacity of the Raymond Canyon Watershed, has been implemented for all authorizations. The BLM recommended the non-use, and the permittees agreed to take voluntary non-use rather than have it decisioned. Based on the non-use, no grazing is authorized in the watershed at the present time. This was to assist in the recovery of the riparian areas in the watershed. This non-use will continue to be reflected on the Annual Grazing Applications and Grazing Bills, see charts on pages 18 and 22 for the 2005 grazing season. The non-use rate is calculated based on the current year's authorized AUMS. This non-use will continue until Proper Functioning Condition (PFC) is achieved on the North and South Fork of Raymond Creek. At that time, if conditions are such that riparian areas can withstand grazing use without hindering recovery to conditions that maintain fisheries habitat, some or all of the voluntary non-use will be re-authorized. If conditions on the riparian areas deteriorate after the AUMS are re-instated, the AUMS will be reduced to the 8% non-use and placed into suspension on the permits.
- Trailing will be allowed in the Raymond Canyon Watershed. This use will be restricted to trailing to and from the designated use areas on the allotment. Cattle herds will be trailed through the canyon in one day. The KFO will be notified prior to livestock being trailed through the canyon so the use can be monitored. This use will be approved based upon resource data available from the monitoring for the current year's use. Fall trailing may be limited or curtailed based on that data.
- Some permittees who have private and/or state lands within the allotment have proposed fencing their in-holdings. This would allow them to use their lands unfettered by the AMP and its management requirements. This would also mean they may need to trail to their in-holdings prior to or after the end of the grazing season. This trailing would have to be applied for prior to the trailing and would have to be on an annual basis. This trailing would be allowed, based on the location of the proposed trailing, and the timing of the trailing which would have to be coordinated and authorized prior to use. The AUMS used for trailing would be counted as Permitted AUMS.
- Trailing back through a pasture that has already been used in the fall to get the livestock back home will be authorized. This trailing will take one day. Use of the 4<sup>th</sup> creek pasture for a holding pasture can be authorized (see Map, Pastures pg 34).
- Sheep use, other than trailing, in the Raymond Canyon Watershed may be authorized on an annual basis. This use would be restricted to the uplands within the North Fork of Raymond Creek. No sheep use would be authorized in the riparian areas. Spring and fall sheep trailing will be authorized. Sheep trailing will be restricted to the uplands along the Igo Speedway on both sides of the Raymond Canyon Watershed fence.
- The association will maintain an adequate number of riders and one range boss, dedicated to the management of cattle for the duration of the grazing period each year. One of the riders will be assigned to keep cattle out of Raymond Canyon. Under the direction of the Range Boss, the riders will maintain distribution within the pastures, herd cattle away from spring lambing areas, assist in the pasture moves, and the fall gather. The riders will move with the herd

in both the south and north pastures. The riders will be allowed reasonable accommodation for horses and a camp throughout the use period. All riders will be in place prior to the grazing season.

- During the lambing period, cattle should not disturb the ewes and new lambs. The range riders will distribute cattle in the south unit to avoid the lambing areas, and will keep cattle herded away until the ewes have lambed. The Range Boss and the sheep permittee will resolve problems that may develop each year to allow the ewes and lambs to mother up and move, and to allow docking, branding, and making up the herds to occur.
- Cattle can be distributed throughout the entire pasture once the cattle are moved into the pasture.
- Livestock will be moved on established move dates unless it appears established use criteria may be exceeded. In those cases, the BLM staff and Range Boss will determine actual move dates based on maintaining a minimum greenline sedge stubble height of 3 inches and/or not exceeding 40% willow use in the spring and second use period pastures. Five (5) inches and 40% use on the willows will be the move criteria in the third and fourth pastures.
- Non-permittees who trail must apply for and have the trailing approved prior to making use each year.
- Salt placement will be coordinated with the grazing schedule to improve cattle distribution within pastures. Salt placement within any pasture must be located at least 1/4 mile away from federal riparian areas and aspen stands. Salt will be removed from a pasture after that pasture has been used, and salt will not be placed in a pasture until one week prior to that pasture being used.
- The boundary fence on Etcheverry/Esterholdt pasture may be moved back to the federal land-line if problems with maintenance continue.
- Because of the need to accurately identify all authorized livestock on the allotment, achieve an accurate count of authorized livestock numbers, and assure only authorized cattle are being run on the allotment, all authorized cattle on the Smithsfork Allotment will have a BLM ear tag as provided and specified by the BLM during the 2005 and subsequent grazing seasons. In addition, all permittees who plan on running livestock that they do not own are required to provide all brands to the KFO prior to turn out, as required by regulation. These cattle will also be ear tagged with the authorized BLM ear tags.

The BLM will allow up to a three percent loss for ear tags in authorized cattle each year. (For every 100 ear tags issued for the 2005 grazing season, the expected ear tag loss due to death or loss of the ear tag while the cow is on the range would be three tags per year.) Upon request by the permittees at the end of the current grazing year, new ear tags will be provided at the end of the grazing season\_to cover up to a three percent loss. Ear tags will have to be removed from cattle sold or otherwise not returning to the allotment the following year as no credit will be authorized for any such ear tags not removed and returned to the BLM.

Different colored ear tags will be provided every fourth year. The replaced ear tags will no longer be accepted as the authorized ear tag for cattle on the Smithsfork Allotment.

- Sheep grazing and/or trailing on the allotment will be counted; this can occur either when the sheep enter the allotment or after the sheep are on the allotment.
- Re-grazing of a drainage or riparian area used by sheep in the spring will not be authorized for sheep use in the fall: such as the North Corral Creek drainage.
- Sheep operations will be coordinated among the users and with the BLM to avoid conflicts on the allotment. Each operator's annual operating system and use area will be defined prior to the grazing season and listed on the individual Grazing Authorization.
- Sheep will be herded to water. Once the sheep have watered, they will be herded away from the water and not be allowed to linger on the riparian areas located on federal lands. Specific watering sites will be identified with the operator and BLM prior to the start of the grazing season. Daily use periods for watering should not exceed 2 hours, for example between 11:00 AM and 1:00 PM, or as determined by the sheep operator. The operator should notify the BLM of his preferred time.
- Drop herds for lambing will be allowed to stay in place while the lambs are young. Once the lambs are old enough for the drop herds to be pulled back into the larger herds, these herds will follow established herding and move criteria. Re-grazing of an area once the criteria have been met will not be allowed.
- Sheep herds will not be allowed to linger on the riparian areas. The herds will be moved using the established move criteria to avoid over using any specific area.
- No sheep camps will be allowed in the riparian areas located on federal lands.
- No sheep will be allowed to bed down over night in the riparian areas located on federal lands.
- Any docking, holding, or separating corrals will be set up away from riparian areas located on federal lands.
- Exchange of Use (E/U) AUMS. A landowner receives credit for AUMS on unfenced private/state lands made

available for grazing within an allotment. The private landowner or state lessee who makes these lands available for grazing by other permittees receives credit for the same number of AUMS, which allows them to graze their livestock on the federal lands within that allotment. The Exchange of Use AUMS were also reduced by 30% in the August 2, 2001 Final Decision. E/U AUMS do not show up on permits, unless percent Public Land (PL) is expressed. On the Smithsfork Allotment, all permits reflect 100% PL, and show only the authorized federal numbers and AUMS. The E/U AUMS are shown on the basic schedule, grazing application, and grazing bills.

• Until such time that the north boundary between the Kemmerer Ranger District and the Smithsfork Allotment can be fenced, the permittees will use a rider to keep their cattle off the Forest Service land.

# Grazing Rotation and Pasture Management System for Cattle, Basic Schedule

The information in the chart below shows the numbers of livestock and AUMS that will be authorized to graze in 2005. The numbers include the 30% reductions and the 8% non-use for Raymond Canyon. These numbers will be shown on the 2005 Grazing Applications.

TABLE 1-A, AUTHORIZED (BASIC) USE AS OF MARCH 1, 2005						
NUMBER	NAME	TYPE OF	NUMBER	ON	OFF	AUMS
		USE		DATE	DATE	
4904138	ROBERTS	FEDERAL	148			530
		E/U	62			218
4904012	BISCHOFF	FEDERAL	8			27
4904016	ВОЕНМЕ	FEDERAL	77			272
	RANCH					
4904017	JOHN BOEHME	FEDERAL	17			63
		E/U	9			33
4904030	GARTH	FEDERAL	28			101
	BOEHME					
4900157	SHANE	FEDERAL	15			52
	BROOKS	E/U	64			224
4904043	HARDESTY	FEDERAL	52			184
		FEDERAL	136			488
		E/U	157			614
4904062	JOHNS	E/U	8			29
4900212	MUIR	FEDERAL	101			333
		E/U	8			29
		FEDERAL	63			208
4900048	CORNIA	FEDERAL	82			293
4904104	LOERTSCHER	FEDERAL	121			431
		E/U	4			15
4904192	TEICHERT	FEDERAL	35			121
4904198	MINHONDO	FEDERAL	50			178
4904265	CORNIA	FEDERAL	34			121
4904276	POPE	FEDERAL	434			1554
		E/U	180			643
4904300	CORNIA	FEDERAL	48			171
		E/U	41			144
4900220	LARSON	FEDERAL	163			584
	TOTAL	FEDERAL	1613			5711
	NUMBERS	E/U	533			1949

Grazing rotation and pasture management system for cattle:

• The current fencing has created three (3) separated pastures; the South end, the Huff Creek/Little Muddy Creek

drainages, and the Coal/Dipper Creek area. The IGO Speedway divides the Huff Creek/Little Muddy into separate areas. The permittees feel they can control the boundary between the Little Muddy and Huff Creek drainages or use areas without additional fencing. These four areas (pastures): South, Little Muddy, Coal/Dipper, and Huff will be used for a 4 pasture deferred rotation for cattle. ( see map on page 34).

- Three years out of four, cattle are planned to start in the Little Muddy, Coal/Dipper, or Huff Creek pastures.
  Dates for moves are listed in the Final Decision, along with move criteria.
  These dates are calculated on pasture size and using the pastures in a rotation, and from previous monitoring data that shows a trend for approximate move dates.
- The Fourth Creek pasture can be used as a holding pasture for fall round-up, (see Map, Pastures, pg 34).
- Periods of use by Pasture: Based on total numbers and surveyed AUMS. These AUMS were taken off the survey map developed from data collected in the late 1960's.

 $\begin{array}{lll} \text{South} & 35 \text{ days} \\ \text{Little Muddy} & 20 - 30 \text{ days} \\ \text{Coal/Dipper} & 30 \text{ days} \\ \text{Huff} & 15 \text{ to } 20 \text{ days} \end{array}$ 

Pasture management and moves will be based on dates. The pasture dates are listed below for each different pasture schedule. These dates and use periods are based on total number of cattle and estimated surveyed AUMS by pasture. See map 34.

Livestock use will be monitored and livestock may be moved earlier than the dates listed for the pasture management. Utilization criteria in the first and second pastures is 3 inches for Nebraska Sedge where it is dominant or 5 inches for Beaked Sedge where it is dominant, 5 inches in the third and fourth use pasture for sedge stubble height, and 40% utilization on willows, as listed on page 21 for stubble height and willow use criteria: refer to handbooks and tech references listed in appendix A, page 39.

- Spring Use-Start Pasture: The following indicators will be used to help determine when to remove cattle from the spring pasture, or when to shift distribution within this pasture: 1) Animal behavior, i.e. (cattle starting to hang in the riparian areas); 2) forage selectivity; 3) willow use criteria. The allowable use criteria is 3 inches on sedges and on willows is 40% of all available twigs on all plants within established transects.
- Second Use Pasture-Summer: Livestock will be removed when the stubble height on the sedge community approaches 3 inches. The allowable use criteria on willows of 40% of all available twigs on all plants within measured transects.
- Third Use Pasture-Summer: Livestock will be removed when the stubble height on the sedge community approaches 5 inches. For upland utilization, livestock will be moved when 50% utilization of current year's growth, as measured by the Key Forage Plant Method, is reached on grasses. The allowable use criteria on willows for willows is 40% of current years growth based on the average percent of leaders browsed on approximately 20 plants on the federal riparian transects.
- Last Pasture-Off Pasture: Livestock will be removed when the stubble height on the sedge community approaches 5 inches. For upland utilization, livestock will be moved when 50% utilization of current years growth, as measured by the Key forge Plant Method, is reached on grasses. The allowable use criteria on willows for willows is 40% of current years growth based on the average percent of leaders browsed on approximately 20 plants on the federal riparian transects.

Use of the Fourth Creek pasture as a holding pasture will be authorized for the fall round up, see pasture map, 34-F. The AUMS in this pasture come from the relinquished AUMS from Scott Nieslanik. The Nieslanik permit was cancelled by Proposed/Final Decision in June of 2003.

last in 2004 and will be used first in 2005. This grazing system will be implemented with the 2005 grazing season.						
	START	MOVE TO	MOVE TO	OFF		
YEAR 1	Huff	Coal/Dipper	Little Muddy	South		
	5/16 to 6/05	6/06 to 7/05	7/06 to 8/01	8/02 to 9/1		

- \* Spring Use-Start Pasture-Huff Creek: The livestock will be moved from this spring pasture no later than June 5.
- \* Second Use Pasture-Summer-Coal/Dipper: Livestock will be moved from this use area no later than July 05 to allow for adequate hot season rest for riparian vegetation growth following grazing.
- \* Third Use Pasture-Summer-Little Muddy: Livestock will be moved from this use area no later than August 01 to allow for adequate hot season rest for riparian vegetation growth following grazing.
- \* Last Pasture-Off pasture-South: Livestock will be removed from this pasture no later than September 1.

	START	MOVE TO	MOVE TO	OFF	
YEAR 2	Coal/Dipper	Huff	South	Little Muddy	
	6/01 to 6/30	07/01 to 7/20	7/20 to 8/25	8/26 to 9/15	

- \* Spring Use-Start Pasture-Coal/Dipper: When the Coal Creek/Dipper Pasture is used first in the spring, the start date will be June 1. Livestock will be moved from the spring pasture no later than June 30.
- \* Second Use Pasture-Summer-Huff Creek: Livestock will be moved from this use area no later than July 20 to allow for adequate hot season rest for riparian vegetation growth following grazing.
- \* Third Use Pasture-Summer-South: Livestock will be moved from this use area no later than August 25 to allow for adequate hot season rest for riparian vegetation growth following grazing.
- \* Last Pasture-Off Pasture-Little Muddy: Livestock will be removed from this pasture no later than September 15.

	START	MOVE TO	MOVE TO	OFF
YEAR 3	Little Muddy	South	Huff	Coal/Dipper
	5/16 to 6/15	6/16 to 7/20	7/21 to 8/05	8/06 to 9/1

- Spring Use-Start Pasture-Little Muddy: Livestock will be moved from the spring pasture no later than June 15.
- \* Second Use Pasture-Summer-South: Livestock will be moved from this use area no later than July 20 to allow for adequate hot season rest for riparian vegetation growth following grazing.
- \* Third Use Pasture-Summer-Huff: Livestock will be moved from this use area no later than August 05 to allow for adequate hot season rest for riparian vegetation growth following grazing.
- \* Last Pasture-Off Pasture-Coal/Dipper: Livestock will be removed from this pasture no later than September 1.

	START	MOVE TO	MOVE TO	OFF
YEAR 4	South	Little Muddy	Coal/Dipper	Huff
	5/16 to 6/20	6/21 to 7/15	7/16 to 8/15	8/16 to 9/1

- \* Spring Use-Start Pasture-South: Livestock will be moved from the spring pasture no later than June 20. Cattle would be held in Mill Creek, First Creek, and Second Creek until 6/5 to 6/10 when ½ of the herd numbers would be moved in Muddy Creek and Muddy Ridge, and 6/10 to 6/15 when the second ½ of the herd numbers would be moved south into Robert's area south of Mill Creek.
- \* Second Use Pasture-Summer-Little Muddy: Livestock will be moved from this use area no later than July 15 to allow for adequate hot season rest for riparian vegetation growth following grazing.
- \* Third Use Pasture-Summer-Coal/Dipper: Livestock will be moved from this use area no later than August 15 to allow for adequate hot season rest for riparian vegetation growth following grazing.
- \* Last Pasture-Off Pasture-Huff Creek: The cattle will be removed from this pasture no later than September 1.

# Rotation and Pasture Management System for Sheep, Basic Schedule

The information in the chart below shows the numbers of livestock and AUMS that will be authorized to graze in 2005. The numbers include the 30% reductions and the 8% non-use for Raymond Canyon. These numbers will be shown on the 2005 Grazing Applications.

AUTHORIZ	ZED (BASIC) PR	EFERENCE, MA	- ,			
		CD	SHEEP			
NULL ADED	NANE		RING USE	D.A.TEE	D.A.EEE	ATDIG
NUMBER	NAME	TYPE OF USE	NUMBER	DATE ON	DATE OFF	AUMS
4904138	ROBERTS	FEDERAL	2484	05/05	06/30	931
		E/U	370			139
4904005	ARGYLE	FEDERAL	2070	05/10	07/09	830
		E/U	74			30
4900217	ROBERTS	FEDERAL	1	05/05	06/30	1
		E/U	313	05/05	06/30	117
4900221	ARGYLE	FEDERAL	166	05/10	07/06	72
4904028	3Y	FEDERAL	1086	05/10	07/06	414
	LIVESTOCK	E/U	850			325
4904062	JOHNS	FEDERAL	340	05/10	07/06	130
		E/U	109			41
4904080	HIRSCHI	FEDERAL	18	06/01	06/30	4
4900219	ARGYLE	FEDERAL	396	05/05	07/09	172
	TOTAL					2554 FEDERAL
						AUMS
						652 E/U AUMS
		F	ALL USE			•
4904138	ROBERTS	FEDERAL	2484	09/30	10/10	180
		E/U	370			27
4904005	ARGYLE	FEDERAL	1225	09/17	10/15	234
		E/U	44			12
4900221	ARGYLE	FEDERAL	97	09/17	10/15	18
4904028	3Y	FEDERAL	1084	09/20	10/31	299
	LIVESTOCK	E/U	850			235
4900217	ROBERTS	FEDERAL	460	09/30	10/10	33
	ROBERTS	E/U	340	09/30	10/10	22
	TOTAL					764 FEDERAL
						AUMS
						296 E/U AUMS
	TOTAL					3317 FEDERAL
						AUMS
						948 E/U AUMS

- Areas or drainages grazed in the spring by sheep will not be re-used in the fall. The utilization criteria of 5 inches of stubble height on the sedge communities and 40% use levels on willows will apply to the fall use areas. This applies to major drainages/ridges like North Corral Creek or Muddy Ridge.
- Lambing in the same area every year may be causing resource damage. Different lambing areas should be found and worked into the rotation. 43 §§ 4180.2(f)(2)Fallback guidelines(xii) Continuous, season-long livestock use is allowed to occur only when it has been demonstrated to be consistent with achieving healthy, properly functioning ecosystems;
- The 3Y Livestock Company is the only large sheep operator using the north end of the allotment on a yearly

basis. The 3Y is authorized on both the Inchauspe and Smithsfork Allotments. 3Y can use one allotment in the spring and the other in the fall, in their own grazing system. The Smithsfork would be used first every other year, and last the alternating years. The reverse would occur on Inchauspe. This would allow a deferred grazing system for the sheep use on the north end of the allotment. This use can be coordinated with the cattle use on the Inchauspe allotment. This use is defined in the Inchauspe Allotment Management Plan.

- Roland Johns would rotate his herd through the uplands on the entire south pasture moving on average every 4-6 days. This use would be coordinated with Roberts and Argyle.
- One (1) year in four, cattle would start in the south pasture: i.e.: The cattle would start in Mill Creek, First Creek, and Second Creek, (see Map in map section) and:
  - o Roberts: 05/05 To 6/15: Sheep on North Corral Creek, South Corral Creek, and areas west and south to the boundary fence with Quealy Reservoir, then allow cattle to move into this use area on June 15. Sheep would move north into uplands in cattle spring use area
  - o Argyle: 05/10 To 6/10: Sheep on Muddy Ridge, then allow cattle to move into this use area on June 10. Sheep would move north into the uplands of the Little Muddy pasture.
- Three (3) years, when cattle start in Little Muddy, Coal/Dipper, or Huff pastures then:
  - Roberts, scatter in entire South End including Mill Creek, concentrating on the upland areas.
  - o Argyle, scatter in South End, including First Creek and Second Creek, concentrating on the upland areas.

# **Future Reductions/Increases Based on Monitoring**

Future reductions will be based on annual monitoring on federal lands after livestock have left the allotment. The criteria for future reductions will based on the use criteria of (1) 5 inches of stubble height remaining on the **key riparian species** of Nebraska Sedge and/or Beaked Sedge and (2) 40% utilization on willow plants has not been exceeded. The monitoring criteria for stubble height and willow use will be measured in all four pastures.

- The established vegetative use level objectives are:
  - a. The stubble height objective for the standing stubble on the green line on the federal riparian areas in all pastures will be an average of 5 inches of standing stubble for Nebraska Sedge, <u>Carex nebraskensis</u>, or Beaked Sedge, <u>Carex rostrata</u>, the identified key species. This use will be measured after all livestock have left the allotment in the fall. Five inches has been identified as the minimum stubble height needed to provide streambank protection for the following spring runoff.
  - b. The allowable use criteria objective for willows in all pastures for willows is 40% of current years growth based on the average percent of leaders browsed on approximately 10-20 plants on the federal riparian transects as measured after all livestock have left the allotment in the fall.

As required in the 2001 Final Decision, an allotment evaluation incorporating 2001, 2002, and 2003 data measured on federal lands was completed following the 2003-grazing season. Monitoring was also completed after the 2004 grazing season. Results of the evaluation and monitoring are:

- The south pasture was the spring use pasture in **2001.** No federal land transects met the 5-inch stubble height objective for Nebraska Sedge in the spring use pasture for stubble heights. Average stubble height was 3.42 inches. Willow use averaged 67% exceeding the 40% use standard on the seven transects measured in August.
- The south pasture was the spring use pasture in **2002**. One transect out of 11 transects in the spring use pasture met the 5-inch stubble height objective for Nebraska Sedge, as measured on federal land. Average stubble heights were 4.8 inches on the Nebraska Sedge on the federal riparian areas.
- The spring use was split between the South Pasture and the Coal-Dipper Creek Pasture in **2003**. No transect on federal land met the 5-inch stubble height objective for Nebraska Sedge, in either spring use pasture. Average stubble height on Nebraska Sedge was 3.33 inches. Average stubble height in Raymond Canyon was 4.8 inches. Use on willows measured on 3 transects averaged 53% and exceeded the 40% use level.
- The spring use was split between the South Pasture and the Coal-Dipper Creek Pasture in **2004**. In September: In the south pasture: One transect was above the 5 inch stubble height requirement; four transects were close to

the objective, and one was below the objective by over an inch. Average stubble height was 4.43 inches. Average willow use was 32 percent on the willows found on the greenline transects on Mill Creek. Over 20 willows were found on the Green Line transect on the Federal on Mill Creek. When the Greenline were previously read in 1996 and 1998, no willows were found on the transect.

In the Coal Dipper Creek pasture, the average stubble height on Nebraska Sedge is 5.23. The average bitten percentage on willows measured on the transects was 15 percent. On the transect in the SW of 25, lots of small young willows are showing up; approximately 75 willows were observed in this transect.

In the Stoner-Little Muddy Pasture averaged 5.48 inches. Average willow use was 57%. No willows were found during the greenline transect in 1999. The transects in Huff Creek averaged 6.78 inches.

In Raymond Canyon averaged 11.2 inches with little to no use on the sedges. Average willow use was 3.5% with the greatest use measuring at 11.6%.

If beaked sedge was measured, as proposed in this AMP, the 5 inch stubble height would have been met where ever the beaked sedge was found. Beaked sedge is showing up in spots where it has not been found before.

Photos were retaken at several spots where photos have been taken in the past, 1989, 1993 and 1994. The photos show an improving trend. See photos in appendix F.

# THE VEGETATIVE USE LEVEL OBJECTIVES FOR THE ALLOTMENT WERE MET AFTER THE 2004 GRAZING SEASON. THE OPTION "ACTIONS TO BE IMPLEMENTED WHEN VEGETATIVE USE LEVELS OBJECTIVES ARE MET" WILL BE IMPLEMENTED FOR THE 2005 GRAZING SEASON.

# ACTIONS TO BE IMPLEMENTED WHEN VEGETATIVE USE LEVELS OBJECTIVES ARE MET

- Once the Vegetative Use Level Objective have been met, no further reductions would be implemented unless objectives are not met for two consecutive years.
- If the established vegetative use level objectives are not met after the 2005 and 2006 grazing seasons, livestock use, as measured in AUMS, will be reduced by 10% per year starting in 2007 and will be reduced by 10% each year until vegetative objectives are met. For example: 100 AUMS in 2005 and 2006 will be reduced to 90 AUMS in 2007, 80 AUMS in 2008, etc. The reduced AUMS will be placed in suspended non-use.

# INCREASES IN AUMS ON THE ALLOTMENT:

- The minimum criteria for evaluating increases will be when riparian conditions reach PFC on 75% of the streams, \*\*. Then the BLM will assess if AUMS may be increased. This may be re-authorized at a rate of 10% or less per year. Raymond Canyon may also be re-considered for increased grazing use once PFC is achieved.
  - \*\* (The Bureau of Land Management's Riparian Wetlands Initiative for the 90's, 75% of the federal riparian wetland areas will be in proper functioning condition).

#### C. FLEXIBILITY

Flexibility in livestock numbers, season of use, and stocking rate is important to the success of a grazing plan. Rangeland ecosystems are characteristically variable over time and locale. Production and (to some extent) animal behavior is affected by annual weather conditions and rarely do weather and biologic processes produce the same forage conditions from year to year. Consequently, flexibility must be built into long-term grazing plans. Yearly stocking rates, pasture moves, and AUMS, (not to exceed the permitted AUMS or permitted season of use,) may vary from year to year. It is important, however, that management responses to changes in forage availability, animal behavior, vegetation treatments, or resource conditions be discussed and agreed upon by livestock managers, the CRM Steering Committee, and the BLM staff and/or appropriate committee.

It is recognized that it may take up to 10 days to complete the pasture move. Gates in the division fence can be opened 5 days prior to the designated move date. The gates must then be closed after the livestock have been moved. All permittees will provide riders under direction of the range boss to effectively complete the pasture move. If half the livestock are moved prior to the listed move date, then the remaining 50% could be moved in the 5 days after the specified move date, see grazing rotation on page 20.

If forage conditions in the last pasture exceed vegetative use objectives, then a possible extension of grazing could be authorized. Certain other conditions would have to be met: (1) stubble heights would have to exceed 10 inches in the last pasture and (2) use level objectives would have had exceeded in the first and second use pastures. No additional use would be authorized if other pastures had been used heavier than prescribed.

Heavy snow conditions in the north and middle pastures may require using the south pasture first out of the planned sequence. Also, if light snow conditions allow, the middle or north pastures may be used first out of the planned sequence.

One alternative is to start in the South pasture and the Coal/Dipper Creek pasture for cattle. When the cattle are moved from one of the pastures, both of these pastures would be closed at the same time. This alternative could be used when the south pasture is scheduled to be used first: this would help reduce conflicts between sheep and cattle in the south pasture. This alternative would not be used more than one year in a row.

START-YEAR 4	MOVE TO	OFF
Pastures 1/2	3	4
5/15 to 7/15	7/16 to 8/15	8/16 to 9/1

The allotment opening date for cattle is May 15. This date can be changed to a later date on an annual basis at the Annual Operating Meeting. This can address resource situations that arise on a seasonal basis. If the on date is modified to a later date, the off date can be modified to handle seasonal situations dictated by seasonal monitoring data; i.e. June 1 to September 15; or June 15 to September 30, but will not be later than September 30 for cattle and October 31 for sheep. When the Coal Creek/Dipper Pasture is used first, the start date would be June 1. The cattle numbers can be adjusted for a shortened grazing season, or the off date can be adjusted to September 15 to maintain permitted numbers. **NOTE:** All permittees will run together for the same season of use by either adjusting numbers or adjusting the season of use.

# D. RANGE IMPROVEMENTS

These projects are currently planned or built to facilitate livestock management and achieve improvement in resource conditions. (See maps 35 and 36).

The BLM has spent well over \$150,000.00 and constructed several fences to divide the allotment into separate management use areas or pastures, and to date the BLM has constructed six spring developments and have three springs and three to four pits planned for 2005.

The projects listed below as proposed are not needed to implement the four-pasture grazing system. They will augment the current grazing system and allow more flexibility and enhance the potential for greater distribution through out the allotment.

- Raymond Canyon watershed fence –The Permittees contributed monies and labor to complete this fence; Trout Unlimited and the Wyoming Game and Fish Department also contributed funds to this fence: BUILT- 2001
- Muddy Ridge and Pine Knoll cross fences BUILT-2001
- o Preacher Hollow-Smithsfork Boundary fence north of bridge calendar year 2002-CONSTRUCTED on property line by Smithsfork Grazing Association
- o North Stoner Fence **BUILT** in calendar year 2002
- o Coal Creek division fence **BUILT** in calendar year 2002
- o Smithsfork/Inchauspe boundary fence **BUILT**-calendar year 2003
- Forest Boundary Gap Fence –INVESTIGATIONAL, calendar year 2005/2006; This fence is
  proposed to be built on the boundary line between the Forest Service and BLM or on BLM land. The
  KFO is investigating if this fence can be built on the Forest Service or on the boundary line.
- o Investigate/build fence around Shale Hollow to control cattle in the drainage if needed.
- o Expand the fence on the south end of South Raymond Creek to close off cattle movement from North

- Mill Creek into the South Fork of Raymond Canyon. Fence location would be on State of Wyoming land. It is felt by the permittees, and the Wyoming Game and Fish Department this additional fence is needed to stop cattle from trailing from North Mill Creek into the South Fork of Raymond Canyon.
- o Move fence on the Smithsfork River between Preacher Hollow and the Smithsfork allotment to the road, starting from the bridge going north on the west side of the road. See EA on Smithsfork fences. This would be considered because of the difficulty in maintaining the fence in its current location.

#### • SPRINGS/PITS

NAME	YEAR		TOWNSHIP	RANGE	SECTION		
COAL CREEK PASTURE #1	2002			T 28 N	R 119 W	NW SECTION 23	
COAL CREEK PASTURE #2			2005	T 28 N	R 119 W	NW SECTION 23	
LITTLE MUDDY DRAINAGE #3	2002			T 27 N	R 119 W	SE SECTION 15	
SOUTH STONER CREEK #4	2002			T 27 N	R 119 W	SE SECTION 12	
LITTLE MUDDY DRAINAGE #5	2002			T 27 N	R 119 W	NW SECTION 13	
BEAVER DAM #6			2005	T 27 N	R 119 W	NE SECTION 6	
COAL CREEK #3		2003		T 28 N	R 119 W	SE SECTION 13	
SOUTH STONER #2			2005	T 27 N	R 118 W	SW SECTION 6	
THIRD CREEK BASIN #1		2003		T 26 N	R 119 W	NE SECTION 10	
THIRD CREEK BASIN #2			2005	T 26 N	R 119 W	SE SECTION 2	
SHALE HOLLOW PIT			2005	T 28 N	R 119 W	SECTIONS 18 & 19	
SOUTH END PIT #1			2005	T 25 N	R 119 W	NE SECTION 25	
SOUTH END PIT #2			2005	T 25 N	R 119 W	SE SECTION 24	
				T 26 N	R 119 W	SW SECTION 3	
IGO SPRING	ALREADY FENCED IN RAYMOND CANYON						

#### • EXISTING PITS ON THE ALLOTMENT:

Section 19, SW<sup>1</sup>/<sub>4</sub>, T26N, R118W: Public land Section 31, NW<sup>1</sup>/<sub>4</sub>, T26N, R118W; State land Section 35, SE<sup>1</sup>/<sub>4</sub>, T26N, R119W; WSA

Section 5, SW1/4, T26N, R118W; Muddy Ridge, Public land

# • PROPOSED PIPELINES and OTHER PROJECTS:

- o Investigate pipeline out of Quealy Reservoir for south end, tank, pipeline, and troughs.
- o Investigate pipeline along the Igo Speedway north from top of Huff Lake to above Coal Creek: pipeline, pumping source, tank, and troughs.
- o Fence area on North Stoner and pipe water to saddle to the south
- o Develop plan to protect White Canyon spring, possibly using outside funds and labor, located in WSA

#### VEGETATIVE MANIPULATION PROJECTS

The objective of vegetative manipulation projects is to improve the vegetative community to provide historic range of variability for rangeland health reasons, improved habitat for wildlife, and livestock forage. The primary purpose of vegetative projects is not to provide additional livestock feed. Project areas can be used to redistribute livestock off of the riparian areas to provide additional rest for these areas.

The objectives for vegetative treatments must reflect the vegetation objectives in the plan. Treatments always need to be based on current vegetation condition and objectives for that area. They are not based on the need for cattle or wildlife feed. Although these are added benefits, they are just added benefits for addressing a vegetation issue.

Some possible tools would be to reintroduce fire (a natural process) back into the ecosystem to rejuvenate fire dependant species such as aspen and mixed mountain shrub communities. An objective would be to increase the diversity and age class of vegetation species in a certain area, see page 7 for upland landscape.

Conditions for vegetative manipulation projects:

- Minimum treatment size for burning is approximately 4000 acres, with 2000 acres planned to be "black".
- If a herbicide is used, treatment areas can be much smaller and have a smaller percentage of shrub mortality, i.e. 40% canopy reduction with spike.
- Treatments can begin after an adequate grazing system is in place and control of livestock has been demonstrated (livestock in proper pastures at the specified times).
- Burns: Are there adequate fine fuels? (This may require one or more years rest prior to treatment.
  - o Can fire be kept in the project area?
  - o Is the area accessible?
  - o Is there cheatgrass/rabbit brush and is it in a low elevation area?
- Post treatment management: Minimum two growing seasons rest.
- The authorized AUMS will be reduced through non-use for the post treatment rest period.
- Treatment areas may be fenced to provide adequate rest for the post treatment period.
- Permittees will assume construction and maintenance of the post treatment protection projects.
- Cost share will be determined prior to treatment.
- Projected cost for burns is \$15.00 per acre.
- Projected cost for chemical treatment is \$20.00 per acre.
- Treatments will be scheduled to provide at least 3 years between projects.
- No more than 15% of the allotment will be treated per decade.

#### MAINTENANCE

All projects which have maintenance assigned and decisioned will have the annual maintenance completed prior to livestock turnout in the spring. The Smithsfork Grazing Association will notify the Kemmerer Field Office in writing prior to turn out that all projects located in the spring use pasture have been maintained before livestock use will be authorized. The projects in the later use pastures will be maintained prior to turnout in these pastures. The projects will be inspected during the summer to verify compliance.

This language was included in the Final Decision issued for the Smithsfork Fences on March 27, 2002, and was not appealed. This language was also included in the Notice of Field Managers Proposed Decision issued for the Smithsfork Springs on April 9, 2002, which went final without protest and was not appealed. "In prior discussion with the grazing permittees and the Smithsfork Grazing Association, it has been agreed that the fences will be maintained by the Smithsfork Grazing Association from assessments made to the Association by each permittee. This is the most efficient and effective process for completing these projects and is the desired approach for accomplishing maintenance of these projects to effect improvement of the resources. However, if this process is not effective in completing the maintenance of these projects, the individual grazing permittees who are permitted to run cattle on the Smithsfork Allotment will be responsible for maintenance of these projects.... 'If an operator does not pay his assessment for maintenance of the fence, or does not maintain his assigned portion of the fence, this operator will not be authorized to turn-out any livestock until the assigned percentage of responsibility for the fence is completed.' "

#### PROJECTS WITHIN THE RAYMOND CANYON WILDERNESS STUDY AREA

No permanent range improvement projects will be constructed within the boundary of the WSA.

#### WATER HAULING

Water hauling is already being used on the allotment. Permittees can use the existing roads and trails to haul water and put troughs on private/state land without clearances. If troughs are placed on federal land, proper clearances will be

obtained prior to the water being hauled. Troughs can be placed for 30 days on a temporary basis. Permanent sites will need a complete project report, including NEPA. Water hauling would greatly enhance cattle distribution in the summer and fall. Water could be hauled to portions of the Igo Speedway, to Muddy Ridge, or to the ridge between Mill Creek and North Corral Creek

#### E. MONITORING PLAN AND SCHEDULES

The data collected from the studies described in the monitoring plan will be used to determine if the plan objectives are being achieved.

# **Description of Short-Term Monitoring Methods**

#### 1. Climatic Data

Precipitation information can be obtained from National Oceanic and Atmospheric Administration (NOAA) stations located in the proximity of the allotment.

#### 2. Actual Use Data

It is essential that the period of use and the numbers of livestock using the allotment be known. This information is used in conjunction with vegetation trend and utilization data to evaluate management.

Actual use data for livestock will be obtained from permittees by Actual Use Reports, provided by the BLM, within forty-five (45) days after the close of the grazing period of the allotment.

The BLM will monitor livestock numbers and brands to insure that only authorized livestock graze the allotment. Ear tagging will be implemented for the 2005 grazing season to assist in the monitoring effort.

#### 3. Use Criteria/Pasture Move Indicators:

Data collected during the grazing period will be utilized to check move dates and to make adjustments of use during the current use period and to determine if livestock are to be moved **prior** to the authorized move dates:

- Spring Use-Start Pasture: The following indicators will be used to help determine when to remove cattle from the spring pasture, or when to shift distribution within this pasture: 1) Animal behavior, i.e. (cattle starting to hang in the riparian areas); 2) forage selectivity; 3) willow use criteria. The allowable use criteria is 3 inches on Nebraska sedge or 5 inches on Beaked Sedge and for willows is 40% of current years growth based on the average percent of leaders browsed on approximately 10-20 plants on the federal riparian transects.
- Second Use Pasture-Summer: Livestock will be removed when the stubble height on the sedge community approaches 3 inches. The allowable use criteria for willows is 40% of current year's growth based on the average percent of leaders browsed on approximately 10-20 plants on the federal riparian transects.
- Third Use Pasture-Summer: Livestock will be removed when the stubble height on the sedge community approaches 5 inches. For upland utilization, livestock will be moved when 50% utilization of current year's growth, as measured by the Key Forage Plant Method, is reached on grasses. The allowable use criteria for willows is 40% of current years growth based on the average percent of leaders browsed on approximately 10-20 plants on the federal riparian transects.
- Last Pasture-Off Pasture: Livestock will be removed when the stubble height on the sedge community approaches 5 inches and/or the allowable use criteria for willows is 40% of current years growth based on the average percent of leaders browsed on approximately 10-20 plants on the federal riparian transects.
- For upland utilization, livestock will be moved when 50% utilization of current year's growth, as measured by the Key Forge Plant Method, is reached on grasses.

# 4. Stubble Height Data

Monitoring data may be collected using any of the approved methods listed in the following table. Descriptions of the methods may be found in the monitoring manuals listed at the end of this AMP in appendix B. Copies of the handbooks are available for review or copying at the Kemmerer Field Office.

#### TABLE ASSESSMENT METHODS

METHOD FREQUENCY

Key Forage Plant-Uplands
 Stubble Height-riparian
 Willow Use, percentage by leader

Annual

The established vegetative use level objectives for determining annual reductions are:

- a. The allowable use criteria objective in all pastures for willows is 40% of current year's growth based on the average percent of leaders browsed on approximately 10-20 plants on the federal riparian transects. Browsing intensity on willows will be monitored throughout the year and evaluated annually. The nearest young plant (less than 5-foot high, single stem or simple branching, non-seed producing) will be used as the sampled plant. The willow transects are approximately parallel to the stream.
- c. The stubble height objective for the standing stubble on the green line on the federal riparian areas in all pastures will be an average of 5 inches of standing stubble for Nebraska Sedge, <u>Carex nebraskensis</u>, or Beaked Sedge, <u>Carex rostrata</u>, the identified key species. This use will be measured after all livestock have left the allotment in the fall. Five inches has been identified as the minimum stubble height needed to provide streambank protection for the following spring runoff.

#### 5. Other Use Data

The BLM and the Grazing Association will monitor livestock numbers and brands to insure that only authorized livestock graze the allotment. BLM, with assistance from the Wyoming Game and Fish Department, will monitor Raymond Canyon prior to use in the spring to assess impacts from winter wildlife use. (See map 38)

Stream Stability rating on all streams, (see Appendix B).

Bank trample. Trample means actual soil displacement and/or physical damage to the bank.

Big game population levels and use on the Smithsfork Allotment will be monitored in cooperation with the Wyoming Game and Fish Department. This data will provide an indication of intensity and trend in wildlife use. All data collected for big game herds is summarized yearly in the WGFD Region IV job completion reports.

If monitoring indicates that wildlife are contributing to not meeting vegetation objectives, the Wyoming Game and Fish Department will be contacted to address potential population conflicts.

# **Description of Long-Term Monitoring Methods**

# Vegetation Trend

Trend in the condition of plant communities will be monitored by any of the following methods. Descriptions of the methods may be found in the Wyoming Rangeland Monitoring Handbook and other BLM publications, (see appendix A). Copies of the handbooks are available for review or copying at the Kemmerer Field Office.

#### SCHEDULE FOR LONG TERM MONITORING

	2005	2006	2007	2008	*	2009	2010	2011	2012	*
Vegetative Use Levels	X	X	X	X	2	X	X	X	X	2
Riparian Photo Points	X	X	X	X	0	X	X	X	X	0
Proper Functioning Condition			X	X	0			X	X	1
Greenline				X	8				X	2
DPC					*				X	*

<sup>\*</sup> EVALUATION AFTER THE 2008 AND AGAIN AFTER THE 2012GRAZING SEASON

#### TREND METHODS

METHODFREQUENCYVegetative Use LevelsEvery yearRiparian Photo Points2-4-year intervalsProper Functioning Condition4-8 year intervalsRiparian Green Line & Stream Cross Sections4-year intervalsLine Intercept & Belt TransectsPre & Post BurnDesired Plant Communities8-12 year intervals

Currently the landscape objective can only be monitored in terms of percent of the allotment with recent vegetation treatments. When an inventory of plant communities and in particular the age classes of the shrub communities within the allotment is completed, Desired Plant Communities monitoring, then the progress toward meeting the landscape objectives can be measured.

# Green Line Monitoring

The greenline measurement is designed to account for a continuous line of vegetation on each side of the stream even when this line of vegetation occurs several feet above or away from the stream's edge. It is important that the greenline sampling process follow these continuous lines of vegetation rather than the seasonally fluctuating water's edge. This helps ensure that measurements are made on the best representative area for evaluating changes in vegetation over more than one sampling period. An evaluation of the vegetation composition of the greenline can provide a valuable indication of the general health of a riparian area (successional status) as well as the current strength of the streambanks in buffering the forces of water (streambank stability). (See map 37, greenline transects location).

# **EVALUATION**

Annual review and evaluation of each year's grazing operations is fundamental to the success of any grazing plan. If problems in livestock management occur or if lack of progress towards achieving resource objectives is apparent, corrective adjustments should be developed in a timely manner.

# 1. Annual Review

Short-term data will be analyzed, interpreted, and evaluated during the grazing season and on an annual basis. The results of these evaluations will be available to the interested public of the allotment through an annual monitoring report. Necessary changes in this plan will be developed through the CRM process and will be coordinated with the interested public. Necessary changes in management may include: salting locations, herding practices, revised utilization limits, fencing, water developments, vegetation treatments, shorter grazing periods, or partial closures of the allotment.

#### 2. Use Adjustments

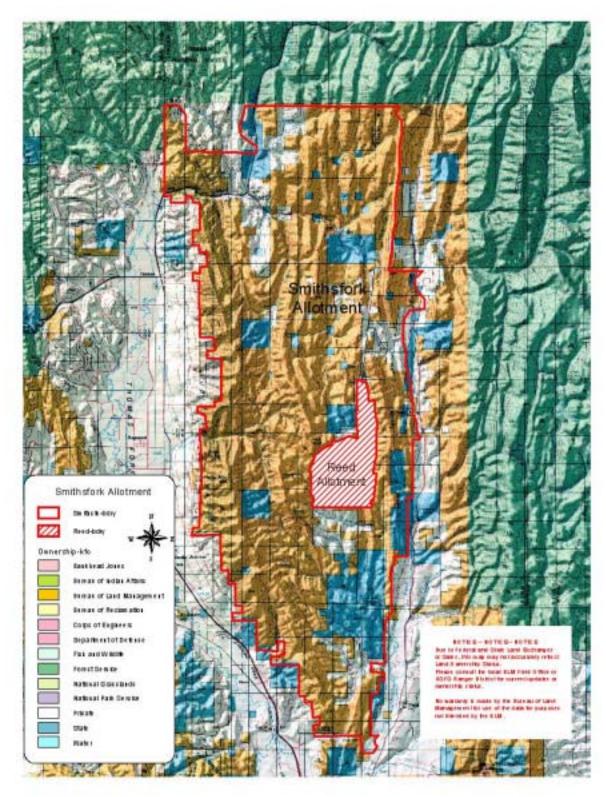
Annual reductions, based on the non-attainment of the Annual Vegetative Use Level Objectives, will be implemented through changes in the grazing permits and annual authorizations for the grazing year following the consecutive 2-year period when the objectives have not been met. When objectives have bee met, including 75% of all streams meeting PFC and no streams rated below FAR-upward trend apparent, consideration to increased use may be considered.

#### 3. Long-Term Evaluation

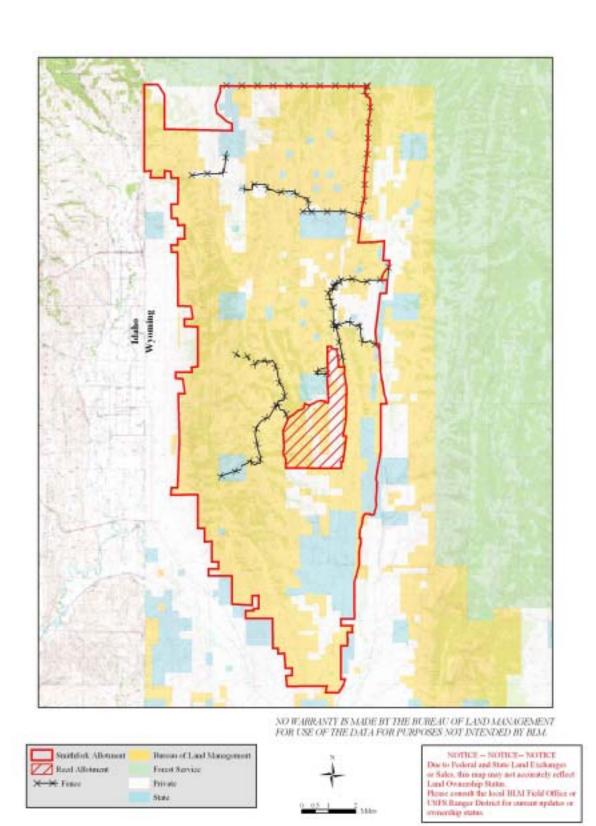
An allotment evaluation of short-term and long-term data will be conducted in 2008 at the end of the first four-year grazing cycle, and again after the 2012 grazing season. If the evaluation indicates the grazing plan is failing to meet or make progress towards resource objectives, appropriate adjustments will be developed. Necessary changes may include those described above as well as creation of additional pastures, reevaluation and modification of resource objectives, or adjustments in the authorized livestock grazing use (i.e., season of use), or recommending adjustments in big game management. Changes to the management plan as a result of the long-term evaluation will be implemented through agreement or decision.

#### MAPS

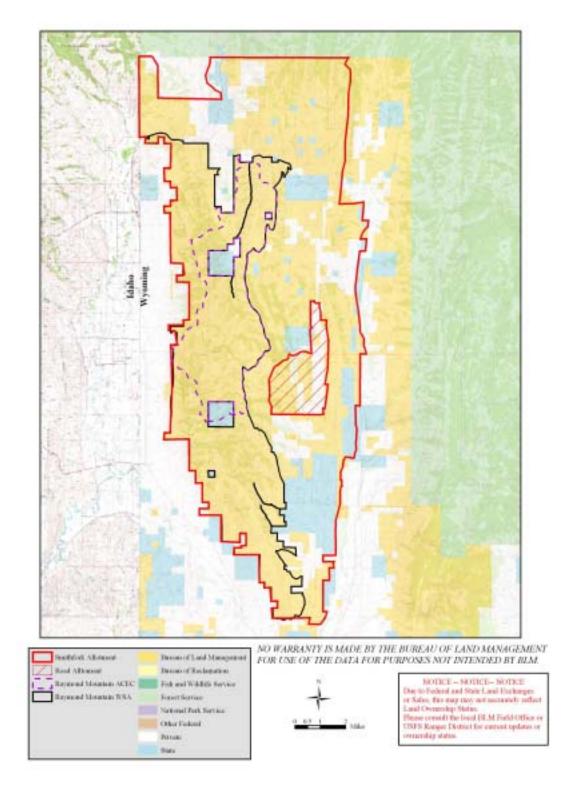
GENERAL TOPO MAP	28
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GENERAL TOPO MAP FOR ALLOTMENT

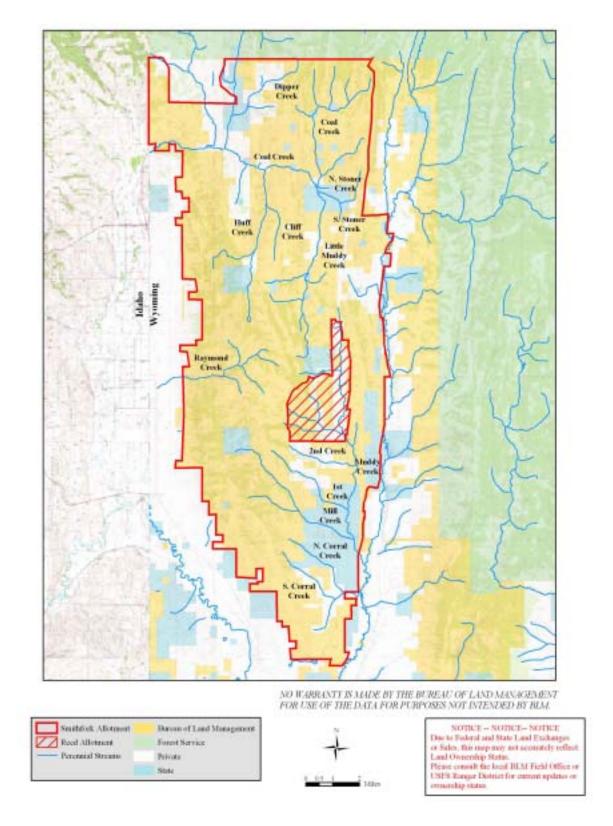


GENERAL MAP FOR ALLOTMENT

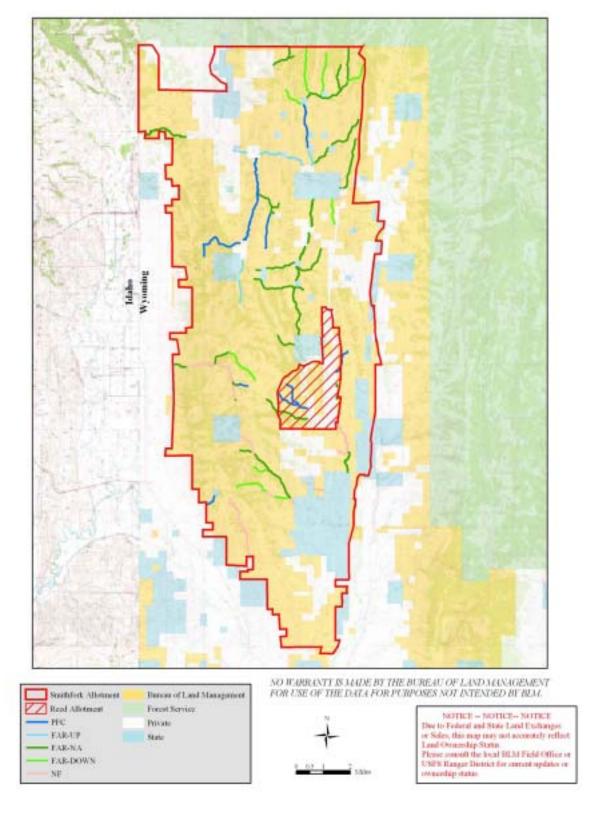


WILDERNESS STUDY AREA BOUNDARY ACEC BOUNDARY

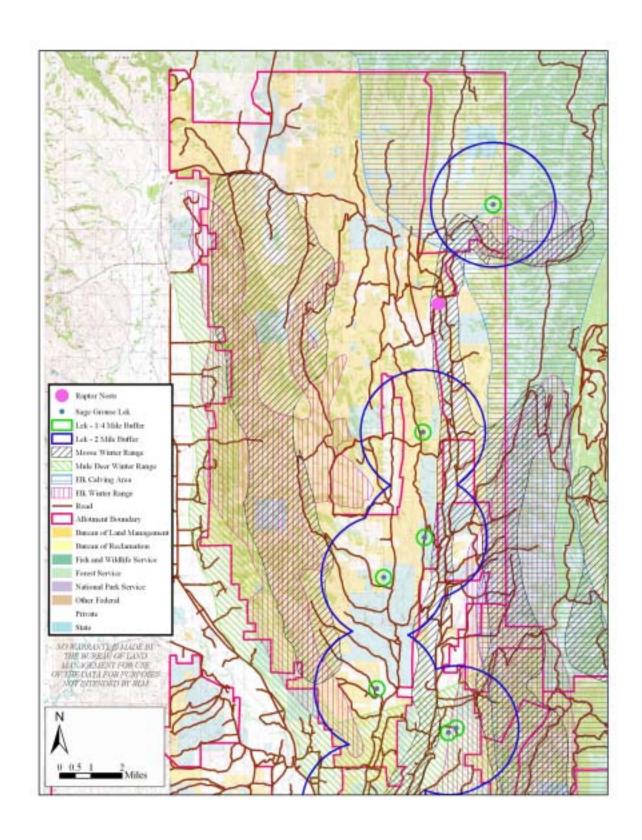
draft 31



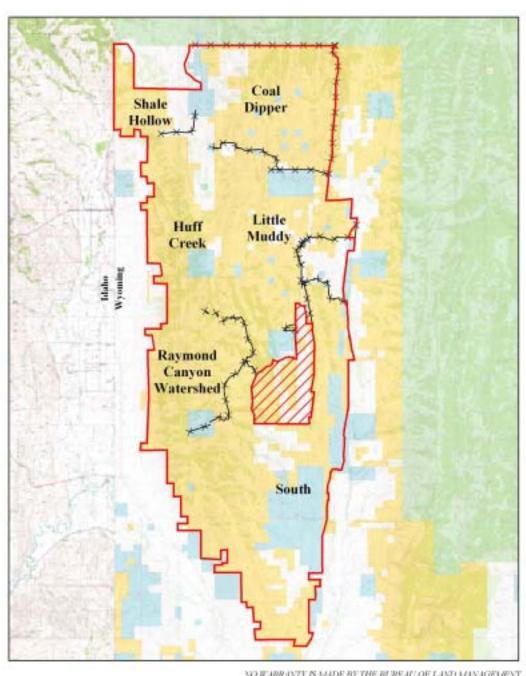
STREAMS ON THE SMITHSFORK ALLOTMENT



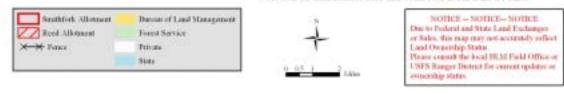
PFC RATING ON FEDERAL STREAMS



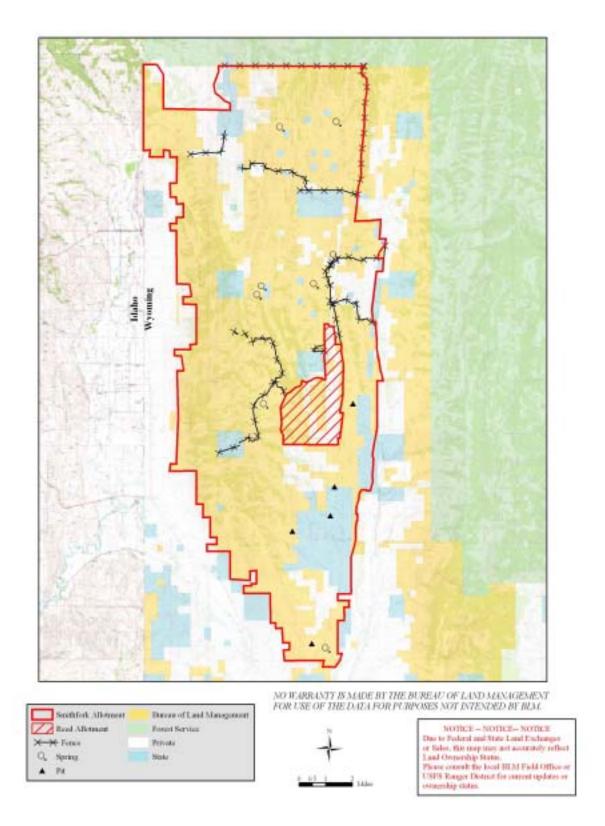
WILDLIFE, SAGE GROUSE LEKS, EAGLE NEST



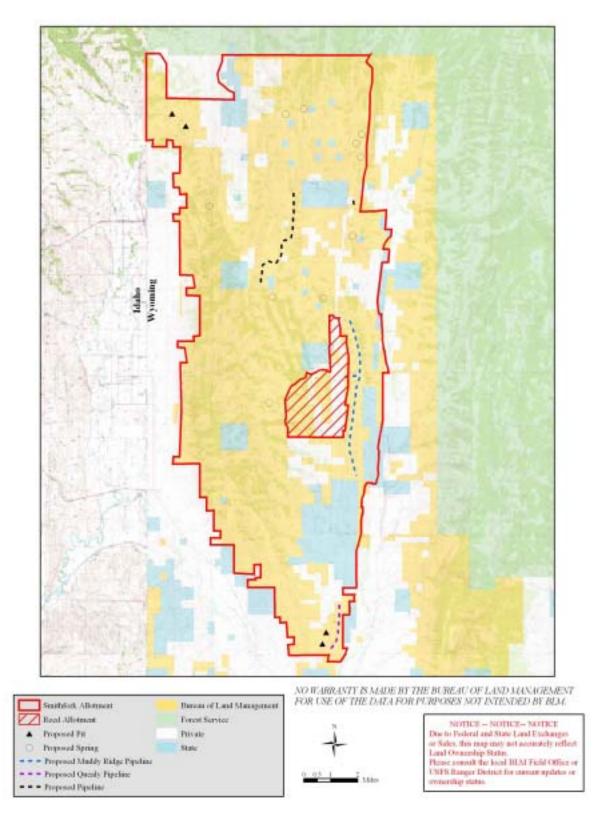
NO WARRANTY IS MADE BY THE BUREAU OF LAND MANAGEMENT FOR USE OF THE DATA FOR PURPOSES NOT INTENDED BY BLM.



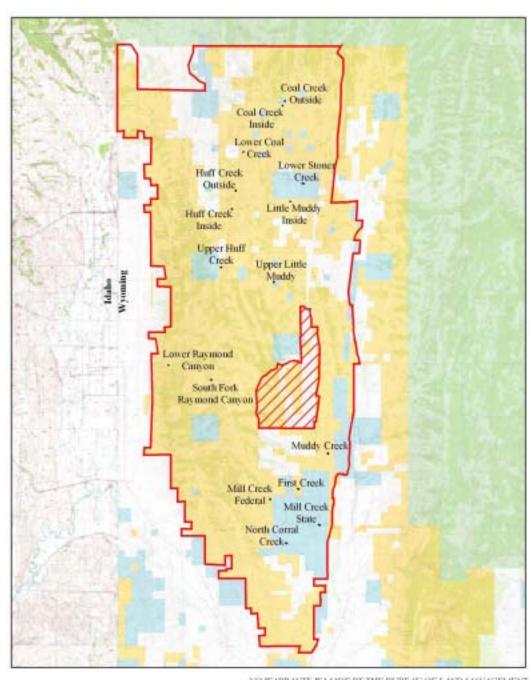
PASTURES ON THE ALLOTMENT FOURTH CREEK HOLDING PASTURE



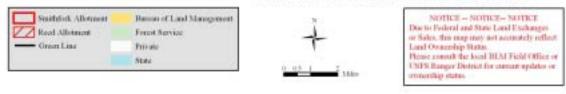
**EXISTING PROJECTS** 



PLANNED PROJECTS

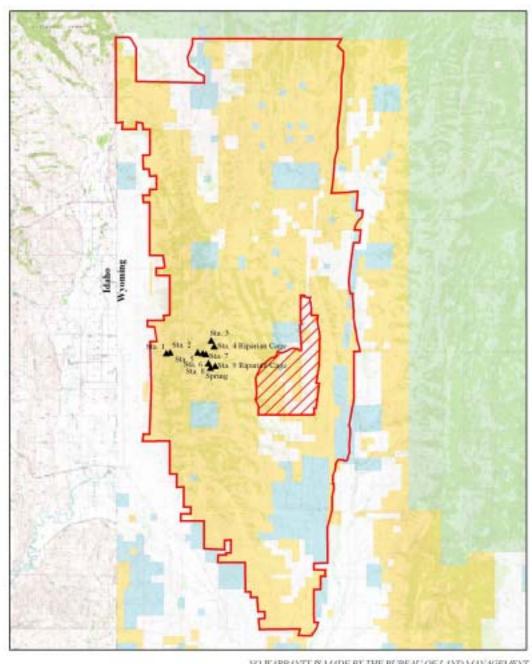


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**GREENLINE TRANSECTS** 

# MONITORING SITES, RAYMOND CANYON



NO WARRANTY IS MADE BY THE BUREAU OF LAND MANAGEMENT FOR USE OF THE DATA FOR PURPOSES NOT INTENDED BY REM.





NOTICE -- NOTICE -- NOTICE

Due to Federal and State Land Exchanges
or Sales, this map may not accountely reflect
Land Ownership Status.

Hence consolt the local BLM Field Office or
USFS Ranger District for correct updates or
ownership status.

#### APPENDIX A: MONITORING HANDBOOKS AND REFERENCE

# Monitoring the vegetation Resources in Riparian Areas: Alma H. Winward, General Technical Report RMRS-GTR-47

"Plant species that become established along edges of streams, rivers, ponds, and lakes. These species play a significant role in attaining and maintaining proper functioning of riparian and aquatic ecosystems.

Percent composition of each community type from the greenline measurements is used to make the successional status and bank stability ratings.

Greenline Bank Stability—the greenline stability rating is calculated by multiplying the percent composition of each community type along the greenline by the stability class rating assigned to that type. These index values are then summed and compared to the appropriate rating classes.

**Wyoming Rangeland Monitoring Guide, August 2001.** Wyoming Range Service Team, member Federal agencies are BLM, FS, and NRCS.

## Rangeland Monitoring: Utilization Studies, T. R. 4400-3, 1984

Utilization Study Methods 5.23, Key Forage Plant Method Twig length measurement method 5.31, page 34, age's and sizes

#### Utilization Studies and Residual Measurements: Interagency Technical Reference, 1996

Stubble Height: page 51

Key Species Method (formerly the Modified Key Forage Plant Method): page 81

Browse utilization and age/size classes: Page 131

# Herbaceous Stubble Height as a Warning of Impending Cattle Grazing Damage to Riparian Areas: General Technical Report PNW-GTR-362, September 1995

"Conclusions: Unacceptable impacts from livestock grazing can be avoided in riparian areas by recognizing that a shift in cattle preference can occur as the 3-inch stubble height is approached. Assume undesirable impacts will occur at any time as stubble height changes from 3 inches to ¾ inch as a result of major shifts in livestock preference."

Stubble Height and utilization Measurements: Uses and Misuses: Agricultural Experiment Station, Oregon State University. Station Bulletin #682, May 1998, page 43.

Riparian Area management: TR 1737-16, Revised 2003. A user guide to assessing Proper Functioning condition and the Supporting Science for Lentic Areas.

Riparian Area management: TR 1737-15, 1998. A user guide to assessing proper Functioning conditions and the Supporting Science for Lotic Areas.

# Interim Management Policy And Guidelines For Lands Under Wilderness Review: Update Document H-8550-1, 11/10/87

### H. Rangeland Management, page 44

- 2. Grazing
  - a. Changes in Grazing. In both "grandfathered" and non-"grandfathered" grazing, changes in number and kind of livestock within the WSA or in period of use may be permitted, as long as: (1) The changes do not cause declining condition or trend of the vegetation or soil, and (2) the changes do not cause unnecessary or undue degradation of the lands. + Caution is required to ensure the wilderness characteristics of the area are not impaired. Any proposed changes in levels of livestock use must be based upon monitoring data which clearly indicate additional forage is available or a reduction in livestock use is needed.
  - b. Prevention of Unnecessary or Undue Degradation. The "grandfathered" clause does not freeze "grandfathered" grazing uses at the same level as existed on October 21, 1976. Section 603(c) of FLPMA provides the mandate to prevent unnecessary or undue degradation of the lands as it applies to "grandfathered" uses. Thus, the "grandfathered" provision will not prevent implementation of reductions in authorized use.

**University of Idaho Stubble Height Study Report:** University of Idaho Stubble Height Review Team, July 2004.

### APPENDIX B: BANK STABILITY RATING DATA

Bank Stability Rating based on existing greenline data (1995-2001): Wyoming rangeland Monitoring Guide, August 2001. Wyoming Range Service Team, member agencies include the BLM, FS, and NRCS. See map in maps section for greenline transects.

	GL CURRENT*		GL PLANNED RATING	
Name	numerical	stability	numerical	stability
First Creek	3.67	POOR	7	GOOD
Mill Creek-federal	3.80	POOR	7	GOOD
Mill Creek-state	3.36	POOR	7	GOOD
North Corral Creek	7.5	GOOD	7	GOOD
Muddy Creek	3.94	POOR	7	GOOD
Coal Creek-out	5.70	MODERATE	7	GOOD
Lower Coal Creek	8.61	GOOD	7	GOOD
Little Muddy-out	5.04	MODERATE	7	GOOD
Upper Little Muddy	4.86	POOR	7	GOOD
Lower Stoner	7.54	GOOD	7	GOOD
Huff Creek-out	6.45	MODERATE	7	GOOD
Upper Huff Creek	5.75	MODERATE	7	GOOD
SF Raymond	2.58	VERY POOR	7	GOOD
Lower Raymond	3.43	POOR	7	GOOD

* taker	n from existing Gre	enline Data: 1998-1999	
NT	min al Datina	Chalailin Datina	

Numerical Rating	Stability Rating
9 – 10	Excellent (very high)
7 - 8	Good (high)
5 - 6	Moderate
3 - 4	Poor (low)
0 - 2	Very Poor (very Low)

Some of the greenline objectives for 2008 will actually put the stability rating above 7. Some of the greenline objectives will be below 7, but the over all objective is still 7. The differences will be rectified during the 2008 allotment evaluation. (See appendix B-1 for data).

#### APPENDIX C: PROPER FUNCTIONING CONDITION DATA

			RA	TING (by federal land	miles only)	
		PFC = Proper Functioning Condition; NF = Non-Functional				
		FUNCTIONAL AT RISK				
Watershed	Stream	PFC	Upward Trend	Not-Apparent Trend	Downward Trend	Non-Functioning
Smithsfork	1st & 2nd				0.15	0.6
	Third Creek		0.25		0.25	
	Big Muddy			2.12		1.13
	Mill Creek			2.75	2.5	1.16
	Chalk Creek			1	0.1	1.8
Bear River	Groo Canyon	0.6		0.1		
Thomas Fork	Cliff Creek	1.25		1.0		
	Coal Creek	3.0	2.5	5	4.75	
	Dipper Creek			1.4	0.35	
	Huff Creek	4.86	3.14			
	Little Muddy		3.01	4.93	0.42	
	Raymond Creek	0.33		1.16	1.75	3
	Stoner Creek			0.52	1.98	
	TOTAL MILES PERCENTAGE	10.04 17%	8.90 15%	19.98 34%	12.25 21%	7.69 13%

See Appendix C-1, PFC data sheets

#### PROPER FUNCTIONING CONDITION

Riparian-wetland areas are functioning properly when adequate vegetation, landform, or large woody debris is present to dissipate stream energy associated with waterfowls, thereby reducing erosion and improving water quality; filter sediment, capture bed load, and aid floodplain development; improve flood-water retention and ground-water recharge; develop root masses that stabilize streambanks against cutting action; develop diverse ponding and channel characteristics to provide the habitat and the water depth, duration, and temperature necessary for fish production, waterfowl breeding, and other uses; and support greater biodiversity. The functioning condition of riparian-wetland areas is a result of interaction among geology, soil, water, and vegetation.

#### FUNCTIONAL--AT RISK

Riparian-wetland areas that are in functional condition but an existing soil, water, or vegetation attribute makes them susceptible to degradation.

#### NONFUNCTIONAL

Riparian-wetland areas that clearly are not providing adequate vegetation, landform, or large woody debris to dissipate stream energy associated with high flows and thus are not reducing erosion, improving water quality, etc, as listed above. The absence of certain physical attributes such as a floodplain where on should be are indicators of nonfunctioning conditions.

#### APPENDIX D: GREENLINE TRANSECTS and OBJECTIVES

#### GREENLINE TRANSECTS

Greenline transects were established at locations on each of the streams on the allotment. The Greenline transects were set up following the methods in BLM Handbook TR 1737-8 with some slight modifications such as recording more detailed data in the field and then summarizing the data into the format in the handbook. Detailed protocol is available in the Kemmerer Field Office. Locations were selected based on where the stream would fall within the potential allotment pastures under consideration at that time. The stream type (a representative sample type) and influences of exclosures were also considerations in locating the transects on the streams. Transects were established in the riparian exclosures to determine the vegetation baseline and potential of the sites. The data from these transects would be used to establish a target for objectives for the transects outside of the exclosures. Data from transects within the exclosures is not presented. (See appendix D-1 for data)

When the transects were set up the plan was to reread transects at intervals appropriate for the rate of expected change. Each transect was to be reread at least at a five year interval. Two transects were scheduled for rereading in 2001 and do not have any comparative data at this time. Both these transects were determined to be close to potential or would not change significantly in the short term so were scheduled later.

The numbers presented in the data tables represent the percentage of a community type as part of the total measured length of all community types occurring on the greenline transect. The majority of community types are composed of both dominant and subdominant plants. These dominant and subdominant plant groupings were recorded in the field in detail down to one foot lengths. The field data was summarized by community types and then converted in to percentages of the transect. For the objectives and the observed percentages in the tables, the community types were combined into groupings of the effectiveness of the plants at protecting the stream or the appropriateness of finding the plant species in a healthy riparian community. Plant communities that were a significant percentage of the transect and were appropriate to the riparian area were listed separately in the tables. Most transects were 350 to 400 feet of stream length. The plant communities were recorded on both banks so each transect consisted of 700 to 800 feet of community types.

The UPLAND community type is a generic category that includes several non-riparian plant communities. All of the upland type usually occurred along stream banks that had no vegetation along the soil/water contact zone and usually occurred on the outside of meanders along cutbanks. As the floodplain develops and reduced stream energies occur, UPLAND should decrease as vegetation establishes on toe slopes of the cut banks or along the soil/water contact zone of the cut banks.

BAREGROUND is unvegetated soil usually located in the floodplain and is flat enough that riparian species should exist on this site. BAREGROUND could also include areas that were heavily trampled.

The category listed as OTHER is composed of the community types or plants that are found in riparian areas but are shallow rooted and are not effective in holding the streambanks together. Many of the plants in this category are also early seral stage plants that would be expected to decrease as the riparian area recovers.

WILLOW community type was recorded only if the willow plants were rooted on the greenline or if willow canopy was an overstory to the greenline. A belt transect was run along the greenline to detect presence or absence of willows along the stream and to establish a density of plants in various age classes. A Belt 6 feet wide and centered on the greenline was used. Willows rooted in the transect were recorded.

Objectives for these transects are projections of the percentage needed to provide minimal habitat or represent the level of improvement expected after five years. The percentages are also based on professional judgment and experience with similar streams and changes in management. The percentages for objectives in the tables are target numbers but may vary plus or minus five percent and still be considered as meeting the objectives.

# APPENDIX E: PHOTOS

All "after" photos were taken in September, 2004.

•	<b>PAGE 45</b>	SOUTH FORK RAYMOND CANYON
•	PAGE 46	SOUTH FORK RAYMOND CANYON
•	<b>PAGE 47</b>	SOUTH FORK RAYMOND CANYON
•	<b>PAGE 48</b>	SOUTH FORK RAYMOND CANYON
•	PAGE 49	HUFF CREEK, SECTION 34, T28N, R119W
•	PAGE 50	LITTLE MUDDY CREEK, NE SECTION 13, T27N, R119W
•	PAGE 51	NORTH COAL CREEK, NE SECTION 13, T28N, R119W
•	PAGE 52	SOUTH CORRAL CREEK-STATE- SW SECTION 2, T25N, R119W
•	<b>PAGE 53</b>	MILL CREEK, IGO SPEEDWAY, NE SECTION 35, T26N, R119W
•	<b>PAGE 54</b>	MILL CREEK, FEDERAL, NE SECTION 35, T26N, R119W
•	<b>PAGE 55</b>	MILL CREEK, STATE, NW SECTION 36, T26N, R119W
•	<b>PAGE 56</b>	MILL CREEK-STATE-BELOW CULVERTS, SW SECTION 31,
		T26N,R118W
•	<b>PAGE 57</b>	MILL CREEK-STATE-SW SECTION 31, T26N, R118W
•	PAGE 58	MILL CREEK-STATE-GREENLINE, SW SECTION 31, T26N, R118W

BEFORE-1998



AFTER-2004



STREAM NARROWING AND DEEPENING, GREENLINE VEGETATION EXPANDING, BARE GROUND DECREASING, WILLOWS EXPANDING

BEFORE-1998



AFTER-2004



STREAM NARROWING AND DEEPENING, GREENLINE VEGETATION EXPANDING, BARE GROUND DECREASING, WILLOWS EXPANDING

BEFORE- GREENLINE-1998



AFTER-2004



STREAM NARROWING AND DEEPENING, GREENLINE VEGETATION EXPANDING, BARE GROUND DECREASING, WILLOWS EXPANDING

**BEFORE-GREENLINE-1998** 



AFTER-2004



STREAM NARROWING AND DEEPENING, GREENLINE VEGETATION EXPANDING, BARE GROUND DECREASING, WILLOWS EXPANDING

# **HUFF CREEK, SECTION 34, T28N, R119W**

BEFORE 1994



AFTER 2004



STREAM NARROWING AND DEEPENING, GREENLINE VEGETATION EXPANDING, BARE GROUND DECREASING, WILLOWS EXPANDING

# LITTLE MUDDY CREEK, NE SECTION 13, T27N, R119W

BEFORE-1993





STREAM NARROWING AND DEEPENING, GREENLINE VEGETATION EXPANDING, BARE GROUND DECREASING, WILLOWS EXPANDING

NORTH COAL CREEK, NE SECTION 13, T28N, R119W

BEFORE-1997



**AFTER 2004** 



STREAM NARROWING AND DEEPENING, GREENLINE VEGETATION EXPANDING, BARE GROUND DECREASING, WILLOWS EXPANDING, VEGETATION ON BANK ABOVE GREENLINE EXPANDING

# SOUTH CORRAL CREEK-STATE- SW SECTION 2, T25N, R119W

BEFORE-1989



AFTER-2004



GREENLINE VEGETATION AND MEADOW VEGETATION EXPANDING, ASPEN GROOVES HAVE MORE REGROWTH, STREAM NARROWING AND DEEPENING

MILL CREEK, BELOW IGO SPEEDWAY, NE SECTION 35, T26N, R119W



AFTER-2004



STREAM NARROWING AND DEEPENING, GREENLINE VEGETATION EXPANDING, SLOPES SLUFFING, BARE SOIL DECREASING, SEDGE COMMUNITY EXPANDING

# MILL CREEK, FEDERAL, NE SECTION 35, T26N, R119W

BEFORE-1089



AFTER-2004



STREAM NARROWING AND DEEPENING, SEDGE COMMUNITY EXPANDING, WILLOWS INCREASING, BARE GROUND DECREASING, BANKS SLUFFING, SINUOSITY INCREASING, FIRST LEVEL VEGETATION EXPANDING

# MILL CREEK, STATE, NW SECTION 36, T26N, R119W

BEFORE-1989



AFTER-2004



STREAM NARROWING AND DEEPENING, SEDGE COMMUNITY EXPANDING, WILLOWS INCREASING, BARE GROUND DECREASING, BANKS SLUFFING, SINUOSITY INCREASING, FIRST TERRACE LEVEL VEGETATION EXPANDING

### MILL CREEK-STATE-BELOW CULVERTS, SW SECTION 31, T26N, R118W

BEFORE-1989



AFTER-2004



STREAM NARROWING AND DEEPENING, SEDGE COMMUNITY EXPANDING, WILLOWS INCREASING, BARE GROUND DECREASING, BANKS SLUFFING, SINUOSITY INCREASING, FIRST TERRACE LEVEL VEGETATION EXPANDING

### MILL CREEK-STATE-SW SECTION 31, T26N, R118W

### BEFORE-1989



AFTER-2004



STREAM NARROWING AND DEEPENING, SEDGE COMMUNITY EXPANDING, WILLOWS INCREASING, BARE GROUND DECREASING, BANKS SLUFFING, SINUOSITY INCREASING, FIRST LEVEL VEGETATION EXPANDING

# MILL CREEK-STATE-GREENLINE, SW SECTION 31, T26N, R118W

BEFORE-1996



AFTER-2004



STREAM NARROWING AND DEEPENING, GREENLINE VEGETATION EXPANDING, BARE GROUND DECREASING, WILLOWS INCREASING, SEDGE COMMUNITY EXPANDING, FIRST TERRACE LEVEL VEGETATION EXPANDING

# APPENDIX F: COMMENTS RECEIVED ON DRAFT AMP

Appendix F-1:	
• May 17, 2004	E-Mail from Dana L. Dreinhofer
• May 18, 2004	E-Mail from Dan Blair
<ul> <li>May 18, 2004</li> </ul>	E-Mail from Chuck and Kate Neal
<ul> <li>May 20, 2004</li> </ul>	Letter from Melanie Arnett
<ul> <li>May 21, 2004</li> </ul>	Letter from Zone 4, Inc.
<ul> <li>May 25, 2004</li> </ul>	Letter from Lesley Wischmann
<ul> <li>May 27, 2004</li> </ul>	E-Mail from Rock Schuler
<ul> <li>May 28, 2004</li> </ul>	E-Mail from Andrew Carson
<ul> <li>May 28, 2004</li> </ul>	Letter from the Office of State Lands and Investments
• June 1, 2004	Letter from Stu Mauney
• June 2, 2004	Letter from Budd-Falen requesting an extension of 30 days for comments
• June 3, 2004	Comments received from the Wyoming Outdoor Council, Greater Yellowstone
	Coalition, Sierra Club, and Biodiversity Conservation Alliance
• June 6, 2004	E-mail from Bryan Wyberg
• June 16, 2004	E-Mail from Mike Smith, University of Wyoming
Appendix F-2:	
• June 4, 2004	Letter from John Carter, WWP
• June 7, 2004	Letter from John Carter, Western Watersheds Project, Inc. (WWP)
• July 2, 2004	Letter from John Carter, WWP
Appendix F-3:	
• July 1, 2004	Letter from the Wyoming game and Fish Department
• July 2, 2004	Letter from Budd-Falen Law Offices representing the Smithsfork Grazing
	Association
• July 5, 2004	Response from Marty & Ragsdale, representing Fred Roberts
• July 5, 2004	Letter from Marty Short
• July 6, 2004	Letter from Eric Esterholdt
• July 19, 2004	Letter from George Kamats
Appendix F-4:	
• July 4, 2004	Letter from Jonathan B. Ratner, WWP